MEDICAL RECORD

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THE healthy know not of their health, but only the sick; this is the Physician's Aphorism.

—Thomas Carlyle

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September 1945

Vol. 158, No. 9

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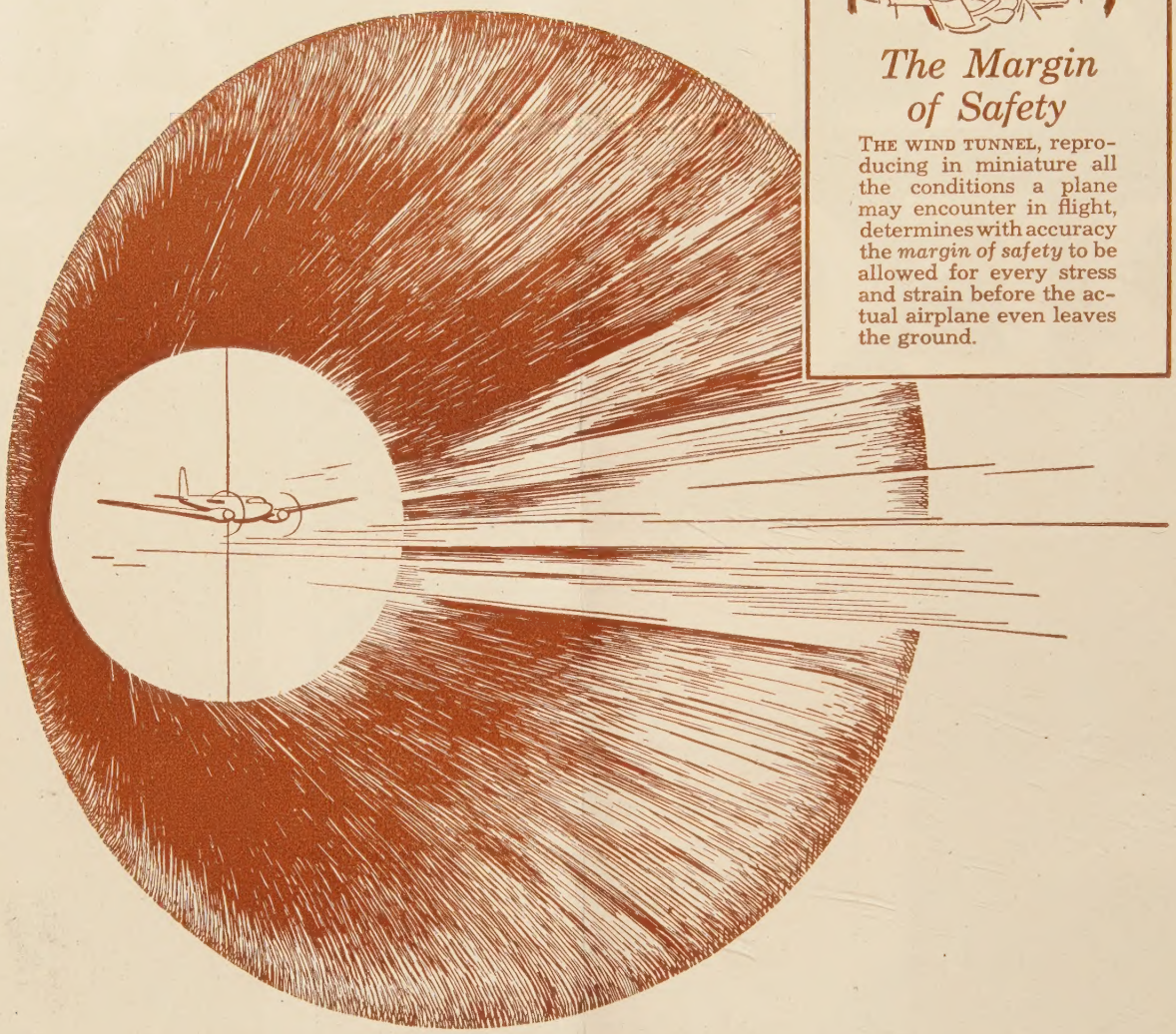

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SEPTEMBER 1945

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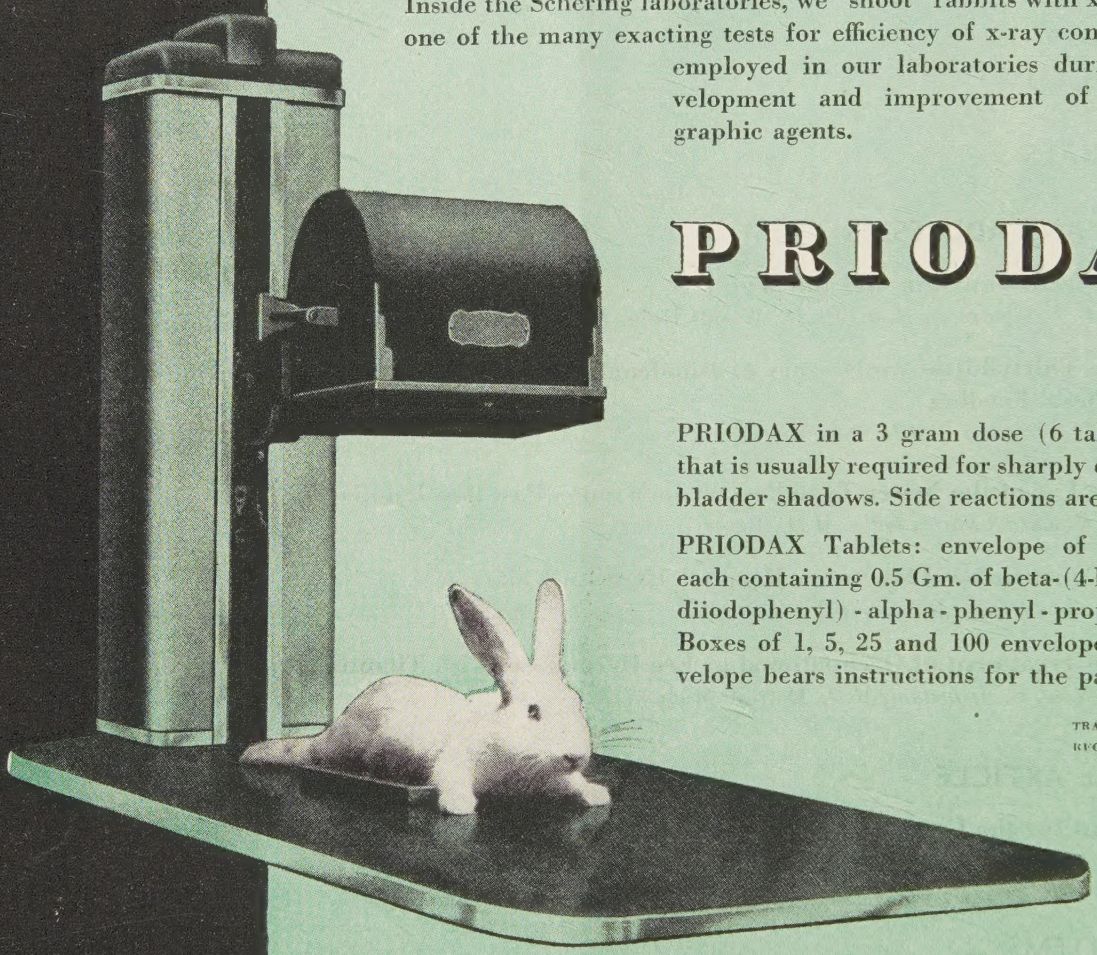

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The United States Pharmacopoeia

The United States Pharmacopoeia observes its 125th anniversary this year. For one hundred and twenty-five years, the United States Pharmacopoeia has adhered to its purpose "to provide standards for drugs and medicines of therapeutic usefulness or pharmaceutical necessity, sufficiently used in medical practice within the United States or its possessions; to lay down tests for the identity, quality, and purity of these; to insure, so far as practicable, uniformity in physical properties and active constituents."

In a historical sketch of this book, presented in a release from the Office of Pharmacal Information, it is stated that unique among nonofficial publications in this country, the United States Pharmacopoeia and its offspring, the National Formulary and the Homeopathic Pharmacopoeia, although owned and controlled by private groups, have been adopted as national standards by law. Thus the United States Pharmacopoeia is in an anomalous position. Remarkably enough, the writer continues, there have never been any serious complaints about this situation, largely because the all-important Committee of Revision has always exercised great care in making absolutely certain that no taint of private interest should color its decisions. Every safeguard is scrupulously observed, and it would be hard to find anywhere in government service a group more consciously aware of its duty to the public. Except for two executives, all the members serve without pay.

The first edition of the United States Pharmacopoeia, published in 1820, largely resulted from the efforts of one man—Dr. Lyman Spalding. There were several local pharmacopoeias at that time, and the idea of a national book of standards was not unknown, but Dr. Spalding, then practicing medicine in New York, carried the idea through to fruition. He invited medical men from the four sections of the country to send delegates to Washington to embody their ideas into a single volume. The result was a book of standards modeled largely after the British Pharmacopoeia, an approved local standard which had been in existence since 1640. The original group was composed entirely of physicians; it was not until 1840, with the third edition, that pharmacists and scientists began to take part in the pharmacopoeia's composition. Since that edition, the work has been carried on preponderantly by pharmacists.

The necessity for standardizing drugs not included in the pharmacopoeia—drugs either too new, too old, or too rarely used, to come within the purpose of the USP—was realized from the beginning. Dr. Charles Rice, chairman of the Committee of Revision in 1880, felt the need keenly, and in 1884 the National Formulary was issued to supplement the United States Pharmacopoeia. Government recognition of these two publications came with the Pure Food and Drug Act of 1906, which cited them as criteria.

The Food, Drug and Cosmetic Act of 1938, replacing the 1906 law, included the Homeopathic Pharmacopoeia, providing standards for homeopathic drugs.

Also useful, although not officially recognized, is *New and Nonofficial Remedies,* issued annually under the direction of the Council on Pharmacy and Chemistry of the American Medical Association.

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Open Forum

Flying Cadet Candidate

To the Editor.—

I have read your editorial, "Rehabilitation Group Signs Off", on page 359 of the MEDICAL RECORD, June 1945. You state: "Then the thought came to Dr. Samuel Meredith Strong, a general surgeon of Flushing, L.I., that here was a group of fine boys, with minor disabilities, many of whom would make excellent flyers; why not try to correct the defects and put them into the Air Forces?"

Although it is true that Dr. Strong set up the American Flying Services Foundation with offices at 140 East Fifty-fourth Street, New York, I fear that your statement that the idea of rehabilitating flying cadet candidates was not Dr. Strong's. In fact, this idea was originated by myself while I was in the United States Army as Flight Surgeon. My plan for the rehabilitation of flying cadet candidates was submitted to the Surgeon's General's Office to the Air Surgeon, and to General Hershey of the United States Selective Service System.

I am sending you a reprint of my article, "The flying cadet candidate and the family physician", published in the *Journal of the American Medical Association,* March 8, 1941. As you will note, this plan was promulgated in June 1941. As a matter of fact, Dr. Strong had written to me immediately after the publication of the article mentioned above, inquiring about my plan.

I, therefore, Mr. Editor, respectfully call this to your attention with the idea that you will, please, correct your statement.

M. Martyn Kafka, M.D.
Forest Hills, N.Y.

Preserving Eggs

To the Editor.—

Though Americans have no disposition to preserve eggs for years, as do the Chinese, and would scarcely regard the end product as a delicacy if they did so, a method of keeping fresh eggs permanently fresh would be beneficial. Dr. W. L. Mallmann, professor of bacteriology and public health at Michigan State College, had done something about that.

He has found that if clean, fresh eggs are dipped within twenty-four hours of "birth" in an odorless, tasteless, white paraffin oil, they can be reasonably expected to keep fresh for six months. At least when cooked they could pass for fresh eggs. Such oil-dipped eggs are already on the market in some western states. They store best at 28 to 31 degrees F.

Such eggs bring the equivalent of fresh-egg prices and the process facilitates long-distance shipment no end. But the eggs have to be fresh when dipped; a stale egg so treated remains a stale egg. The idea of the oil dip is to seal out bacterial activity; if this has started within the egg it will continue, dip or no dip.

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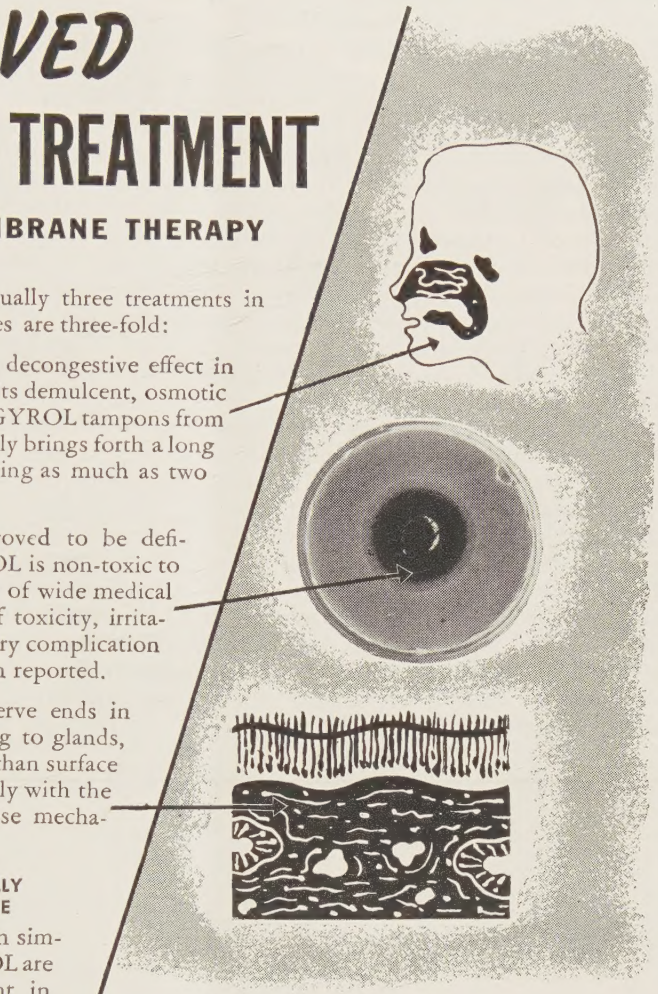

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T. Swann Harding,
Falls Church, Va.

Medicine and the Neuroses

The report of the Hershey Conference on Psychiatric Rehabilitation has been issued by The National Committee for Mental Hygiene, Inc. A list of those who attended the conference is presented, which includes medical officers of the Army, the Navy, the Army Air Forces, the United States Public Health Service, and the Veterans Administration who were present by authority and participated in the discussion but were unable, because of their official position, to join in the recommendations of the conference.

The urgent needs of men returning from armed service were discussed, and to hold the discussion within practicable limits attention was focused on the needs of men with psychoneuroses (with or without somatic complaints) and marginal maladjustments, since these problems are the most prevalent, the most neglected, and therapeutically the most promising. The conference would not wish this action to be interpreted as minimizing the need for optimum care of psychotic veterans. The principal recommendations of the conference are as follows:

1. It is urgently desirable that the psychiatric training of picked medical personnel in military installations be continued and expanded.

2. Facilities *other than hospital care* (such as the mental hygiene units) for the treatment of men with psychoneurotic reactions might well be further developed in military installations in the hope that many more men can be retained in service for treatment which is not at present available in civilian life.

3. There is urgent need for an impartial restudy of the therapeutic facilities and policies of the Veterans Administration with respect to veterans with psychoneurotic reactions, and of legislation regarding compensation for such veterans, which has a direct bearing on therapy. Veterans' organizations, medical associations, the national Executive, and the appropriate committees of the Congress are urged to lend their support to such a study.

4. The National Committee for Mental Hygiene should intensify its efforts to arouse and inform the public, and in particular the church, the schools, industrial management and labor, as to the needs and care of veterans with psychoneurotic reactions; and to promote the training and efficient use of psychiatric social workers and other auxiliary personnel in community services for such veterans.

5. Physicians engaged in the practice of general medicine need education on the neuroses and their care. An experimental course, or courses, at the postgraduate level should be set up promptly to develop content and methods for such education. Teaching personnel should be carefully chosen in view of the fact that not all psychiatrists are prepared to undertake this responsibility.

IN REFLEX PHENOMENA

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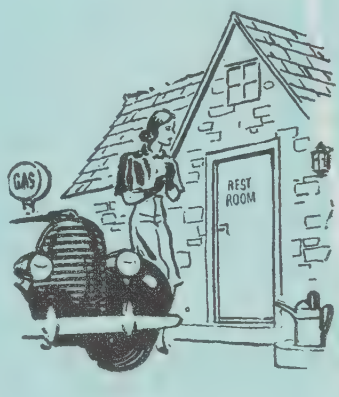

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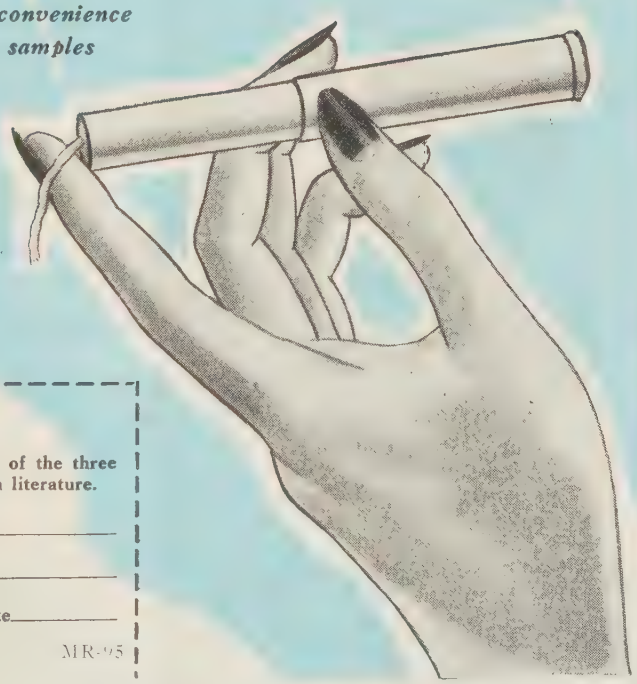

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6. For the graduate training of internists and general medical men already introduced to, or interested in, psychiatric aspects of medicine as a result of their war experience, fellowships should be made available, and these stipends should be large enough to attract men already well equipped professionally.

7. Patterns for comprehensive medical care and the teaching of comprehensive medicine to undergraduates and house officers are urgently needed. To this end psychiatrists and internists should jointly carry major teaching responsibility in medical outpatient clinics and wards. In the present emergency medical schools should be encouraged to give priority to such duties in the assignment of suitably trained persons and to experiment freely with clinical and teaching methods.

8. Graduate training for comprehensive medical care would be facilitated if the American Boards of Internal Medicine and Pediatrics credited to a limited extent appropriate experience in psychiatry and if the American Board of Psychiatry and Neurology reciprocally credited appropriate experience in internal medicine or pediatrics.

9. Training for the specialty of psychiatry should give increasing attention to the treatment of the psychoneuroses as they present themselves in both psychiatric and general medical practice, to the care of ambulant patients, to the use of auxiliary personnel (psychiatric social workers and clinical psychologists), and to community services for the promotion of mental health.

The following physicians were designated as a continuation committee to take such steps as seemed possible toward implementing the conclusions of the entire group: Dr. David P. Barr, Dr. Walter L. Palmer, Dr. Thomas A. C. Rennie, Dr. George S. Stevenson, and Dr. George W. Thorn. Dr. John C. Whitehorn and Dr. John Romano, appointed to this committee, were unable to serve because of absence on an official mission.

Pacific Medical Conference

An important meeting was held in the Office of the Surgeon General, Washington, D.C., on July 30, 31, and August 1, which was attended by outstanding experts in surgery, medicine and disease control from all theaters of operation throughout the world. The meeting was called by Surgeon General Norman T. Kirk, "to pool the knowledge and experience of the men from the fighting fronts in order that the lessons learned thus far in the war can be more thoroughly applied than ever before in the conservation of human life." Others who attended the conference included officers from virtually every division and branch of the Office of the Surgeon General, and the various phases of medical and surgical care, supply, transportation, training, and related subjects were discussed. Among the major problems were more effective means for the treatment and care of both wounded and sick troops near the front, and the prevention and treatment of tropical diseases. The problem of returning medical personnel who have served several years in Pacific areas to the United States and replacing them with personnel from this country and the European and Mediterranean Theaters was also given consideration.

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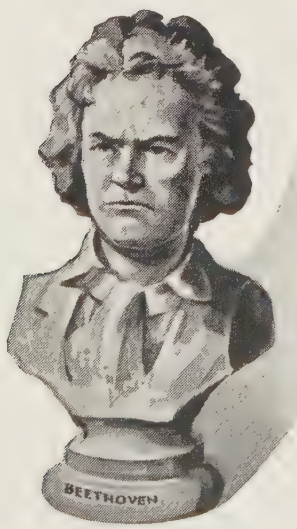

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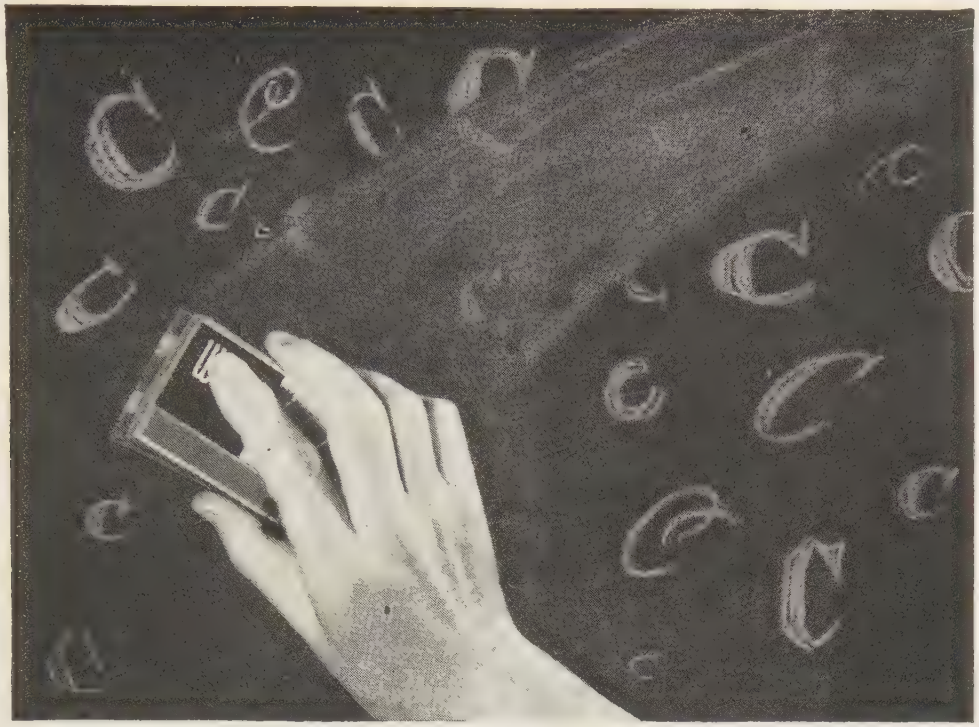

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[1] *Jeans, P. C. : J. A. M. A. 120:913, 1942.*

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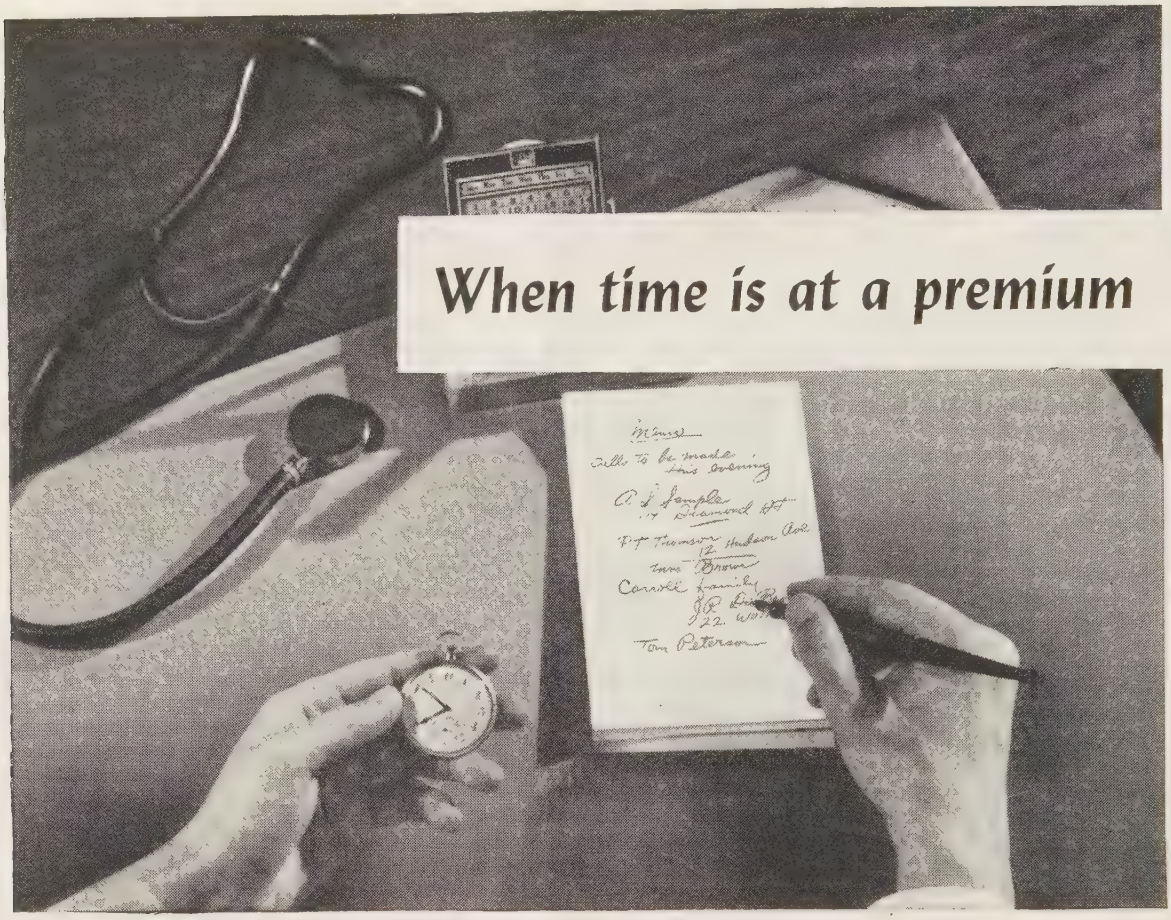

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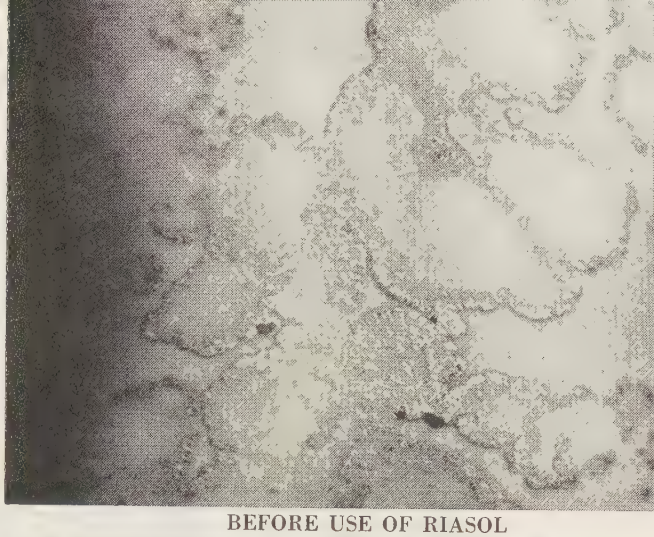

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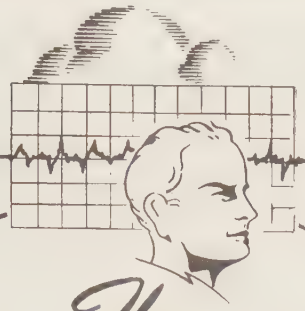

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Life Insurance and Medical Progress

In commenting on the recent closure of the tuberculosis sanatorium maintained for its employees at Mount McGregor, N.Y., the Metropolitan Life Insurance Company points out (*Statistical Bulletin,* June 1945) that the operation of this sanatorium for thirty-two years clearly demonstrates that an organization which is guided by enlightened good will and prepared to provide the requisite facilities can practically eliminate tuberculosis among its employees. Realizing that to be effective the program must be well planned and inclusive, the company launched a systematic effort, through annual medical examinations, to search out cases of tuberculosis, especially in the early stages. The patients were given adequate sanatorium care, and not only encouraged but given the opportunity to remain under treatment without cost to themselves until their condition warranted returning to work. Freedom from economic worries helped measurably toward their recovery.

That the program was eminently successful is indicated by a recent study, which showed that of all patients followed for at least ten years after discharge from the sanatorium, one half were either at work or able to work at the end of this period. Among patients who had been brought under treatment in the early stage of the disease and whose condition on discharge from the sanatorium was considered satisfactory, the proportion at work or able to work after at least ten years was nearly eighty percent. The success of the company in virtually eradicating tuberculosis among its personnel has served as a guide to other employers and, in fact, to the whole tuberculosis movement. If in the general population, cases of the disease were discovered early, the patients given adequate treatment and, where necessary, provided with suitable employment, the further decline in tuberculosis would be materially accelerated.

In the light of the many victories that have been won in the battle against tuberculosis and the infectious diseases generally, the announcement of life insurance companies, including the Metropolitan, that they are making funds available for an effective attack on the more difficult problem of the cardiac diseases, is of interest. Fundamental research is evidently called for to discover the systemic causes which bring about premature physical breakdown. Diseases of the cardiovascular system account for almost one half of all the deaths in the United States. Many deaths from these conditions are preceded by long illness, the patients often requiring medical and nursing care, and in many cases hospitalization. The economic and social loss from these diseases obviously reaches an enormous total. With the continued aging of the population as a whole, the toll of disability and death from these causes will undoubtedly increase. All who work in the field of public health and preventive medicine will watch with interest the research program of the life insurance companies, which has immense possibilities for public service.

The heavy toll taken by tuberculosis socially and economically for centuries can be reduced to a minor public health problem in one generation and eventually eliminated altogether by putting into practice the knowledge we now have of its epidemiology and treatment.—Chadwick and Pope, *The Modern Attack on Tuberculosis.*

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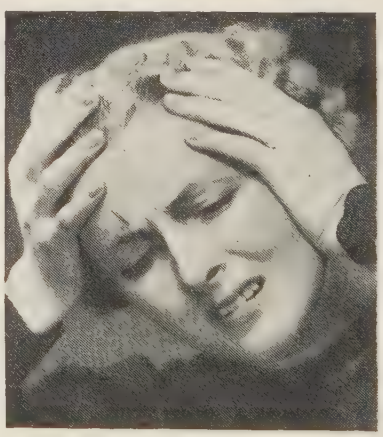

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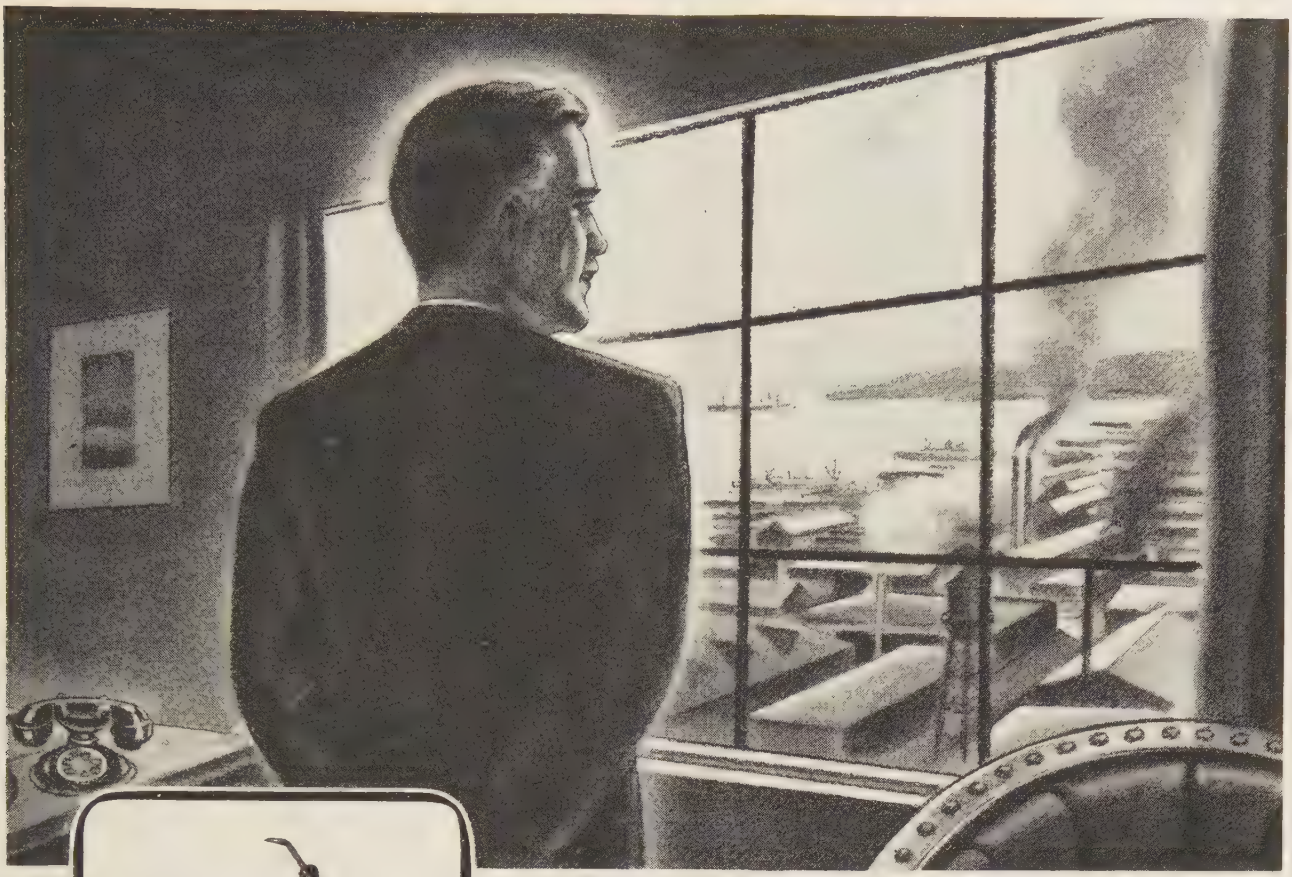

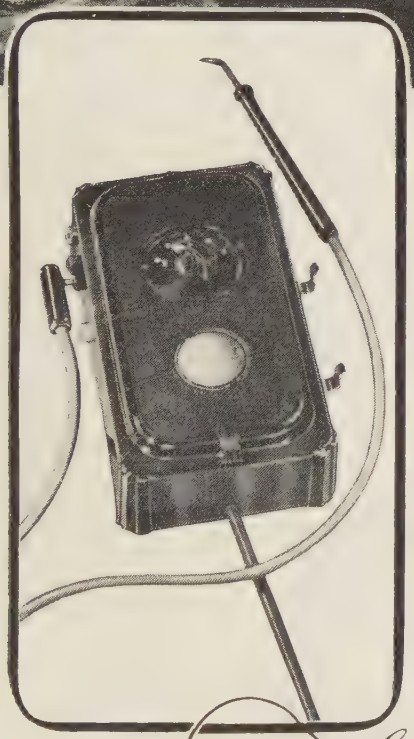

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Critique

Physician's Guilds Writing to the *New York Times*, April 5, 1929, Edwin Hopkins advocated the formation of physician's guilds to effect mass health production. A young medical graduate, argued Hopkins, required a small fortune to set up in medical practice, and he usually didn't have it. If he had it, he would equip an elaborate office with a great deal of expensive apparatus, most of which would be idle the best part of the time. It was almost as bad as if a young man had to start his own locomotive-making plant!

So why didn't doctors gather together voluntarily into groups and purchase and equip clinics, Then they could treat continuous groups of patients and keep their apparatus in use all the time. Each physician could then become a departmentalized specialist who merited the confidence of his patients. They would form a sort of physician's guild, their incomes would be larger but their fees lower than at present. Hopkins wondered if lone practitioners outside such guilds could survive.

Dreamers "The opinions of men on the relative values of theory and experimentation are interesting and at times amusing. From one we have the statement that 'a theory is to be trusted any time rather than an experiment', while another refuses to make a statement which is not supported by actual observation, 'others may theorize'. Both of these attitudes represent a state of mind which is bad. Speculation that does not rest on sound experimentation is dangerous, and experimental findings that are left uninterpreted are worthless.

"The great advances in science have been made by those who have seen beyond experimental results and have predicted that we now recognize as facts. The rest of us merely lay the foundation, important, but more commonplace. Whether we call these dreamers fools or geniuses depends primarily on whether or not we agree with them. It was Kekulé who, dreaming on the top of a London omnibus, conceived the benzene ring. As necessary to knowledge as theorizing is, we must see to it that our inferences are soundly drawn and that they rest up experience". (William Swifriz on the Structure of Protoplasma, *Biological Reviews*, January, 1929.)

Degradation of Energy The second law of thermodynamics is no doubt true statistically. It confines itself, however, to our experience with secondary bodies consisting of an immense number of molecules, none of which are perceptible individually. Yet Maxwell, in his *Theory of Heat* (1894, p. 338) says:

"This law is undoubtedly true as long as we deal with bodies only in mass, and have no power of perceiving or handling the separate molecules of which they are made up. But if we conceive a being whose faculties are so sharpened that he can follow every molecule in its course, such a being, whose attributes are still as essentially finite as our own, would be able to do what is at present impossible to us . . .

"For we have seen that the molecules in a vessel full of air at uniform temperature are moving with velocities by no means uniform, though the mean velocity of any great number of them, arbitrarily selected, is almost exactly uniform. Now let us suppose that such a vessel is divided into two portions, A and B, by a division in which there is a small hole, and that a being, who can see the individual molecules, opens and closes this hole so as to allow only the swifter molecules to pass from A to B, and only the slower ones to pass from B to A. He will thus, without expenditure of work, raise the temperature of B and lower that of A, in contradiction to the second law of thermodynamics."

When someone remarks that some day, when you put the teakettle or beaker over the gas flame or bunsen burner, the water will freeze solid instead of boiling, he is banking on this statistical speculation of the greatest English physicist of all times, Maxwell.

Toad Medicine In China and the Occident generally the Chinese toad and its dried venom have long appeared in the *materia medica*. Pentsao Kan Mu (1596) recommended the preparation for external application for canker sores, sinusitis, toothache, gum hemorrhage, inflammatory conditions, and internally also as a compound pill to break colds. Powdered toad was also recommended for dropsy and other ailments; see, if you must, J. Schroder's *Thesaurus Pharmakologicus*, Leyden, 1672: try and get it. Famous Italian poisoners used toad venom even before Mussolini developed into a bullfrog. K. K. Chen and H. Jenson (*Jour. Amer. Phar. Assn.*, March 1929, page 244), found that the venom contained cholesterol, with two parts per hundred of ergosterol, bufagin, and a nitrogen-containing compound still more toxic and—note—epinephrine.

Is Fruit Poison? Every once in a while a patient gets an idea that some fruit is poison. Rhubarb is commonly cited as being full of deadly oxalic acid. Like many fruits it does contain a number of organic acids such as oxalic, citric, or malic. These impart the sour taste. Citric and malic are usually present as free acids and probably exert neither harmful nor beneficial effects. When metabolized they are converted into carbon dioxide and water. Oxalic acid it not so easily oxidized in the body, but rhubarb stems do not contain sufficient oxalates to be toxic in the quantities usually eaten. Undoubtedly you could stuff yourself full of rhubarb, and it might then poison you. However, the leaves of rhubarb contain more oxalic acid than the stems. Cases of poisoning from eating them have been reported. The public should be cautioned against their use as food. Cooking does not remove the oxalates from the leaves.

Incidentally, spinach is rather high in oxalates too, so high that not only is its own calcium poorly used by our bodies, but eating spinach interferes with our absorption of calcium from other foods. The little boy was right who, when confronted with broccoli, said: "I say it's spinach, and I say the hell with it!"

Neither the citric acid of lemons nor the acids of rhubarb or rhubarb juice can be converted into sugars, by the body, though every now and then you will find a layman who believes they can be. Class on rhubarb dismissed.

—THE CRITIC

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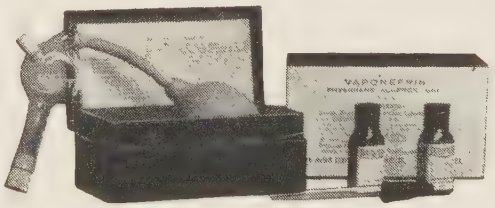

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SEX DETERMINATION AND THE WAR

F. E. CHIDESTER, A.M., Ph.D.
Woods Hole, Mass.

Will Nature restore the balance, and replenish the supply of males lost in battle? According to one theory of sex determination, the conquered nations will produce more boys who may grow up to manhood, and reverse the situation by conquering their oppressors. After every major war we have had the revival of an ancient theory which attempted to prove that the soldiers, returning enfeebled from war, would produce new *sons* to take their places in the nation.

After the first world war, Halban-Seitz furnished evidence that there had been a marked increase in the proportion of boys born in Germany. It is notable that after the Franco-Prussian war, when the Germanic peoples were not the losers, there was no such preponderance of male children.

An old belief among horse-breeders for centuries, has been that the more vigorous sires produce females, while the weaker stallions are getters of male colts.

On the other hand, this idea of strength coming from weakness, called the "Starkweather law of cross heredity of sex", has been controverted by others who maintained steadfastly, and prove statistically, that the strong parent is *prepotent,* and fathers only boys. But any theory of sex determination is bound to seem right, one-half of the time!

Strong Right Ovary Produces Males

The oldest theory of sex determination, dating back to Aristotle, and Galen, and others in the dim past, is the one that involves the "strong" right ovary, which produces only male children. The weak left ovary (they say) yields eggs that invariably develop into girls! The alternate functioning of the ovaries each month, enables supporters of this theory to foretell the sex by merely recording the ovary that produced the egg which became fertilized. Operations in which one ovary is removed, are also reliable checks, it would seem. Ardent proponents of the theory ignore facts.

Based on clinical records extending over a period of several years, Dr. E. Rumley Dawson issued a book in 1915, in which he supported the right ovary-left ovary theory. A woman wrote a book shortly after in which she gave evidence in support of this theory from records of her cattle-ranch.

Although the late Dr. David Starr Jordan, one of our most beloved eugenists, was kind enough to write an introduction to the cattlewoman's book, it has not been considered to have any merit. For records after operation in human cases, and the experimental findings of Doncaster and Marshall, and other workers with rats show that eggs from *either ovary* fertilized by sperms from *either testis,* will develop in about equal proportions into males and females. Remarkable are the reports on the armadillo, where four young, of identical sex, develop from a single fertilized egg. Here, records prove conclusively that the right ovary liberates either a male producing or a female producing egg; as does the left ovary, also. And in the common fowl, her single ovary produces both pullets and cockerels.

Males Struggle for Life, Even Before They are Born

Just why it is that male embryos die in such numbers before they are born, is not known. Some authorities hold that it is due to the antagonism between the chemical constituents of the mother's body, and the developing male who occupies the womb as a parasite. Evidence is conclusive that during every month of development, many of the human male embryos are eliminated by death, or by abortive miscarriages.

In 1926, Parkes gave a survey of six authorities who found that from the fourth month of pregnancy on, the proportion of boys to girls dropped most remarkably. It has been estimated that the primary sex ratio is about 170 males to 100 females. Since human mothers bring forth, on the average, about 104 boys to 100 girls, the mortality is thus seen to be very high in the case of males about to be born. At the first birth, the proportion is approximately 111 boys to each 100 girls.

An important study of the mortality in young calves was given in the fifty-sixth annual report of the Wisconsin Experiment Station in 1938. Apparently a great number of male fetuses, probably about one-half of them, are reabsorbed or aborted in the early stages of gestation, particularly during the third month, in cattle. Mammalian males have a very high rate of metabolism, and glandular overactivity in the mother may cause reabsorption of the embryos, as seen in thyroid-fed rats.

In a study of 2,044 fetuses, many more males than females were found among the very young animals. Yet at birth, the number is approximately equal. Among 120 of the youngest fetuses, the Wisconsin group found that sixty-six percent were males. In one group, intermediate in size, the number of females almost equalled that of the males. In the largest size of unborn calves, the males again outnumbered the females, in the pro-

portion of sixty-six percent greater. But here the records of premature births present a different picture. For female fetuses, in cattle as well as in humans, are born earlier than the males. Thus, examination of unborn animals does not tell the whole story. The excessive number of very young males is replaced by approximately the same ratio as in other mammals, at birth, in calves as well as in human cases. Prenatal mortality is terrific, for males. But why?

Young Eggs and Old Eggs

In 1863, Thury of Switzerland published a book in which he gave data to show that in cattle, matings that occurred at the beginning of the heat period yielded a preponderance of female calves. Matings that were arranged for periods late in heat, when the eggs were ripened, resulted, in Thury's tests, in males. Thury considered that the ovum, when first liberated, was female in its potentialities, but that it became altered as it passed along the genital tract, and had then the potentiality of being a male. A number of contemporaries of Thury tested his theory and agreed with his findings. Unripened eggs developed into female calves; and ripe eggs became males.

At the Maine Experiment Station, Russell, in 1891, reported on evidence that was in support of Thury's hypothesis. Later Pearl and Parshley published data that proved confirmatory, at the same station. But in a final paper, Pearl, in 1917, concluded, from additional data, that there was no true means of determining the degree of ripeness of the eggs, or the time of their fertilization. For sperms will remain alive in the reproductive tract of females for several days, and still be able to fertilize eggs.

During the first World War, Siegel kept records of the time of matings in relation to the menstrual periods. His records were presumed to be accurate because of the reports furnished from families of soldiers who came home on furloughs. When the matings came during the first few days after the menstrual periods had ceased, there was a great preponderance of male births. This increase in males persisted up to the first nine days after the menstruation began. Later matings gave a high proportion of females. The records cannot be considered reliable as they presuppose an accuracy of knowledge as to the rôle of the *putative* father that is not justified. Moreover, the male fetuses at birth are known to be some five or six days older than females. The period of gestation for males according to Siegel's own records was, on the average, 272.6 days, and that of the females was only 267.5 days. We have already shown how this spoils the record in calves.

In frogs, delayed fertilization caused the majority of the "ripe" eggs to develop into males, in the tests made by Hertwig, in 1906. After eighty-nine hours, the percentage of males was very high.

Born, removing eggs directly from the female frog, found that if they were fertilized without delay, ninety-five percent of them developed into females.

Some thirty years later, G. deBeer conducted experiments in which he held the frogs' eggs until they were three or four days old, and then by artificial fertilization secured normal tadpoles. Developing into normal frogs, ninety-five percent of them were males. When deBeer kept the eggs a day or so longer and then fertilized them, the tadpoles developed malformed brain and spinal cord, and soon died. Still staler eggs rarely developed at all, and the occasional ones that did hatch, resembled a malignant tumor.

In line with this finding on the preponderance of males that developed from ripe eggs, we have the observations of Freeborn, in 1916. In his survey, he showed that an excess of females occurred in human cases where impregnation occurred early in the intermenstrual period. An excess of males appeared in the eggs fertilized during the last of the intermenstrual period. Thus evidence seems conflicting in human cases.

Certain authorities have cited the cases where religious sects prohibit matings for a week after menstruation and the ratio of males is very high, to prove that the overripe eggs produce male offspring. But here the fact that sperms remain alive in the reproductive tract of the human female for nine days, raises the question as to the real age of the sperms rather than the eggs that were fertilized. In some animals, such as the bat and the deer, sperms are retained for months in the reproductive tract of the female before they are finally used to fertilize the eggs.

Diet and Sex Determination

War rations in the conquered countries are notably poor, and if there is any relation between sex and the abundance or scarcity of food, this ought to be considered. Apparently diet does play a part in sex determination, in some animals.

The old classical instance of dietary effects is found in the bees. For the queen bee is fed large amounts of a special kind of "royal jelly" or bee-bread which will insure her reproductive potency. The neutral workers are not so fortunate in their diet, and are sterile. In an attempt to determine differences that might account for the development of the queen bee, a French scientist, using the spectroscope, has determined the fact that manganese is present in the body of the queen bee while sodium is absent. In the worker bees, he finds that manganese is lacking, and sodium is present in large amounts. An interesting correlation is seen in the fact that in rats, manganese lack causes females to exhibit less maternal interest in their young.

In the rotifers, animals that were once classed with the worms, it has been shown by D. D. Whitney, A. F. Shull, and others, that a large proportion of male grandchildren can be produced by feeding the grandmother a green unicellular organism; while if she is fed a colorless form, the offspring will practically all be females. Oxygen excess has been suggested as the factor responsible for the maleness. This fits into our evidence on the speed of oxidation, and of metabolism, as a sex determining factor, which will be shortly discussed.

Katase, of Osaka, Japan, has furnished evidence that rabbits fed chiefly on vegetables, milk, fruit, and other calcium-rich foods, gave birth to 133 males as compared with one hundred females; during their first pregnancies; 178 males and one hundred females during the second pregnancies, and 193 males and one hundred females, during the third pregnancies. When he fed pregnant rabbits with meats and other magnesium-rich foods, the proportion was seventy males for each one hundred females, in the first pregnancies; sixty males for each one hundred females, the second pregnancies; and fifty-four males for one hundred females, the third pregnancies. Katase has given no evidence for human

cases. He believes that magnesium-rich foods will induce the production of girls; and calcium-rich foods, the development of boys.

Born and Jung later, independently ran tests with frogs, and were able to produce an excess of females when the tadpoles were fed on meat or fish. Jung raised the percentage of females from fifty-six percent to ninety-two percent by feeding them meat.

Cuenot, in similar experiments, produced an excess of males in frogs that had been fed meat as tadpoles. When they were fed vegetable diets, the sexes were approximately equal.

King found that neither food nor temperature was of any influence in sex determination in amphibia. Witschi, on the other hand, subjected frog tadpoles to a high temperature (32°C.) and found that of thirteen females thus treated, all gradually underwent sex reversal, while the fifteen males retained their sex. King was able to obtain eighty-seven percent females in toads by drying their eggs thoroughly before undertaking artificial fertilization with sperms.

Many years ago, Schenck, the physician, having noticed the presence of sugar in the urine of pregnant women, concluded that it was an evidence of incomplete metabolism. Accordingly he fed women with highly nitrogenous foods, and was able to "ripen" their ova, and produce a greater number of males in proportion to females. He gained wealth and honors in Europe by his apparent success in securing male heirs for noble families. The crowning achievement of Schenck was to advise the Royal family of Russia, and when a son was finally born, everyone most conveniently forgot the previous failures when several girls appeared first. It is triumphs such as these that make the reputations of many an authority on sex determination. In this game, "we won't count this one" is apparently legitimate and in the rules.

Sex Chromosomes the Real Key

From a long series of studies, we know that the type of spermatozoon determines the maleness or femaleness of animals. In mammals there are two kinds of spermatozoon, one-half of them bearing an X chromosome; and the other half, a *smaller* Y chromosome. All of the eggs are alike provided with a single X chromosome.

In the case of the human male, there are twenty-three pairs (forty-six) body chromosomes, or *autosomes*, present in each body cell, and in addition, an X chromosome that came from the mother, and a Y chromosome from the father. When a man liberates spermatozoa from his body, they have, in the process of being developed, gone through cell divisions with separation of half the chromosomes, so that a sperm contains twenty-three body chromosomes, and either an X chromosome or a Y chromosome. If the Y chromosome bearing spermatozoa succeeded in reaching eggs first, those fertilized will be males.

In the human female, there are twenty-three pairs of body chromosomes, and two accessory, or sex-determining X chromosomes, in each body cell. But one of these X chromosomes came from the male ancestor. For when an egg, with its twenty-three body chromosomes, and its single X chromosome, has developed from the primitive cells of the ovary, it, like the spermatozoon, has exactly one-half the chromosomes in the body cells. If a "reduction division" had not taken place, it is obvious that in a very few generations, the egg cells would be filled with chromosomes, as a result of the process of fertilization, which brings together the male and the female chromosomes. So eggs and sperms, before their chromosomes unite, have half the autosomes, and half the "sex-chromosomes". Fertilization restores the proper number to the child.

Thus in the egg, ready for fertilization, there is one X chromosome and when it is fertilized by a spermatozoon that has also an X chromosome, a female child is the product. In the child each body cell contains twenty-three pairs of autosomes, plus one X chromosome originally in the egg, plus the X chromosome that was contributed by the fertilizing spermatozoa. Of the forty-six autosomes, twenty-three of them came from the father and twenty-three from the mother, by way of the egg, and the sperm.

Just what part the autosomes (body chromosomes) may play in the matter of aiding to determine sex, we do not know. But we do know that the Y chromosome determines maleness, if present. And in some animals (subhuman), there is no Y chromosome, but males result. This brings us to a realization that the *speed* of metabolism in the egg may be an important factor, and of this, the author has written, in a number of scientific and medical journals.

Sex Chromosomes and Cell Chemistry

A biochemical explanation of the rôle of the sex chromosomes was first published by me in the *Anatomical Record*, for 1933, after it had been reported to the American Association for the Advancement of Science. Details have been given also in the *Journal of Medical Practice*, May 1936.

As previously stated, all the body cells of the human female contain forty-six autosomes or body-chromosomes, just as in the case of males. But her cells also contain *two* of the less compact, sex chromosomes, and the body cells of the males have one X chromosome, and one, *smaller* Y chromosome.

The two X chromosomes, together with the other (body) chromosomes will bind iodine to them, and *limit cell oxidations* in females. On the other hand, the small Y chromosome present along with the forty-six autosomes, and the single X chromosome, in male cells, will not bind iodine to such extent, and accordingly there will be greater oxidation in all male body cells.

It is well known that tumors of the ovaries in women will cause precocious puberty; Novak of Johns Hopkins University cites six such cases, three of them from his own practice. It is also known that some tumors of the ovaries, like those of the adrenal (suprarenal), pituitary and pineal glands, will cause a loss of feminine characters, and the condition of virilism. These tumors induce hyperactivity of the endocrines as they demand iodine for growth. When women are defeminized, their breasts become flattened, they cease to menstruate, and they also become hairy, and may need to shave daily. Natural menopause is marked, in some women, by a high rate of metabolism with disturbed thyroid-adrenal apparatus.

Similarly, tumors of the adrenal will cause young boys to become mature very early. The action of tumors is to induce profound glandular disturbance and increase the amount of iodine in the body fluids. Iodine is seized by tumorous tissue, in vast amounts. The in-

creased oxidation effect may overrule the absorptive power of the chromosomes in the body cells of females.

The cyclic menstrual flow in women and other mammals is associated with a great increase in the iodine of the blood at the time of the flux. This iodine increase is gradual, extending over a period of about four weeks. Unusual activation of the endocrine glands, as seen in exposure to cold, infections, or fright, may have serious effects on the body chemistry, and disarrange the cyclic flow. Pottenger (personal communication) has found that in some women, dysmenorrhea is cured if they stop smoking. Smoking or drinking may influence the female sex cycle, predisposing to mammary cancer.

In males, normally very active, there are heavy losses of iodine daily, through feces, urine, lungs, and skin. Hyperactivity of the thyroid gland, with inability to furnish adequate amounts of iodine to prevent sterols and growth-acids from accumulating in the breasts, is seen in men, whose goiter may be followed by hypertrophy of the breasts (gynecomastia) and in some cases by breast cancers.

Normal iodine intake, as in seafaring people, results in great fertility in both men and women, and in the proper development of male or female secondary sex characters.

The sex anomalies that arise when extracts of the "sex hormones" are given to pregnant rats, come because of deranged iodine metabolism.

Separating the Light From the Heavy Chromosomes

Reasoning that it might be possible to separate the heavier from the lighter spermatozoa, and thus divide the Y bearing and the X bearing ones, Lush used a centrifuge, and then tested the different fractions with rabbits. The results were not significant, however.

Koltzoff has used an electrical current to separate the X and Y bearing spermatozoa from each other. He used sperm from the anode to fertilize a doe (rabbit) and secured six females thus. When the sperms from the cathode were used, another doe gave birth to one female and four male rabbits. Sperms from the central part of the tube produced two female and two male rabbits, as Koltzoff expected. But these tests are too meager in numbers to signify anything.

Metabolism and Chromosomes

Riddle, of Cold Spring Harbor, at the Carnegie Laboratory, has given us his "metabolic" theory of sex. He concludes that the males have a higher rate of metabolism and that the oxidizing powers of the male exceed those of the female. The chromosomes provide the "pull" towards a higher or a lower metabolic rate. Sex anomalies are explained by the factors that determine the speed of metabolism, and oxidation (1).

Richard Goldschmidt (2), formerly of the Kaiser Wilhelm Institut, Berlin, but now in the United States, has studied gypsy moths (even in Massachusetts where they attack trees) and finds that some races are sexually weak, while others are sexually strong. He considers that the chromosomes are able to furnish enzymes that overpower female producers and a male results.

Factors That Determine Oxidation Rate

In 1924, Parhon reported on experiments in which female rabbits were deprived of their thyroid gland, and their offspring were predominantly males. It is well known that the removal of one of the glands of internal secretion will result in an increase in the function of the others, for a time. As I have shown, the glands of internal secretion are all iodine-rich and their extracts involve an iodine effect. Iodine steps up the speed of metabolism.

Adler found that frog's eggs, which were fertilized when they were overripe, not only developed into males, as in Adler's experiments, but that these males had greatly hypertrophied thyroid glands. And Witschi found that the Swiss frogs that had a goitrous condition were almost all males. It is possible that the acids of decay, in overripe eggs, could create a chemical condition which by higher oxidations would determine maleness. *(To be continued)*

THE THIRTY-FIFTH ANNIVERSARY OF DUODENAL ALIMENTATION AND REMARKS ON NASAL FEEDING*

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Nasal feeding or nasal alimentation has recently been used here[1] and abroad for duodenal alimentation, which, however, I consider a wrong expression, for stating the facts. The procedure consists in introducing a duodenal tube through the nose into the throat; then catching the capsule end of the tube with a forceps and lodging it into the pharynx, letting it go into the esophagus by drinking water, and in this way finding its way into the stomach. Inasmuch as the tube can be directly lodged into the pharynx and by correct management made to reach the stomach without difficulty, the constant position of the tube in the nose appears superfluous.

Dr. Rehder, who first introduced this method in Germany, gives an elaborate description of the handling of the nose and throat for this purpose[2]. When I met Dr. Rehder I told him that I did not approve of this method, for the nose had enough duties to perform, and this inconvenience for the patient was entirely unnecessary. Later on the same method of alimentation was used in America. Dr. Rehder uses very long tubes, which at times cause some inconvenience.

I gladly acknowledge Dr. Rehder's good work. He is one of the best men in Germany practicing duodenal alimentation. He describes the process of intubation as follows:

"The tube lies in the nose, pharynx, esophagus, stomach and duodenum and ends ten to forty centimeters beyond the fluxura duodenojejunalis of the small intestine. The position of the tube in the nasal

*Read before the New York Medical Union at a meeting held at Lennox Hill Hospital on May 22, 1945.

[1]Dr. A. L. Levin devised a gastroduodenal catheter, which he introduced through the nose (*J.A.M.A.* April 9, 1921).

[2]Dr. Rehder—Altona: *The Tube Treatment of Chronic Ulcers of Stomach and Duodenum"*, Leipzig, 1931.

canal has the great advantage that the patient is not disturbed by attacks of vomiting, which the thicker tubes (not passable through the nose) provoke. The irritation of the foreign body in the nose is noticeable only in the first few hours after the introduction of the nasal tube. It disappears and is not felt in the following days and weeks of intubation".

"Introduction of the tube is done as follows: The tube after being oiled properly is pushed into the cleaned nasal passage for about ten centimeters when a slight resistance is encountered which is easily overcome. The patient experiences a slight tickling during the passage of the tube, when it reaches the throat. At this point, the physician grasps the tube and with the forceps pulls it out of the mouth, attaches the guiding sponge leader to the tube and pulls it out a little further, and now drops it back into the pharynx and makes the patient drink water, which causes the tube to enter the stomach."

"The nasal end of the tube should be smeared with borvaseline every day. The mouth should be washed daily and gargled with hydrogen peroxide (one teaspoonful to half a glassful of water), once or several times daily. Every morning before the first feeding it is necessary to blow in air slowly through the tube, in order to ascertain that the tube is not clogged. In order to prevent lesions of the nasal entrance it is necessary to smear it thoroughly with borvaseline. The mouth has to be kept clean by frequent cleaning the teeth and gargling with hydrogen peroxide, one teaspoonful to one quarter of a glass of water several times daily." Dr. Rehder saw, during the cure, the appearance of tonsillitis, when the patients neglected to keep their mouths clean.

I do not like to use the expression "nasal alimentation" for "duodenal alimentation", for *nasal alimentation* is an entirely different thing, and can be used at times with great advantage.

Although somewhat belated, it is my pleasure to describe to you a case in which I used real nasal (or nasogastral) alimentation with great benefit.

Report of Case

In December 1928, I was called to see Mrs. H. M. H., of Dayton, Ohio, who had had an apoplectic stroke and was entirely unconscious. She had been treated for some time by Dr. Johnson, the family physician, for cholecystitis, chronic myocarditis and paralysis brachii sinistri and slight aphasia. The attack of apoplexy occurred on December 14th. Three consultants were called in, namely, Dr. Samuel W. Lambert, Dr. Frederick Peterson and myself, who with Dr. Johnson took care of the patient. Lumbar puncture was done a number of times. The question of nutrition came up. We could not open the patient's mouth and therefore decided to try nasal alimentation.

I arranged to introduce liquid food by means of a flexible canalized bougie through the nose into the stomach. This nasal catheter was left in place for nutrition and worked very well. It was kept up for about ten days when the patient died. During the entire period of her illness, there was no return of consciousness. She was watched carefully, and the only important change which was noticeable during feeding was the appearance of a lively red color over the face, stomach and the whole abdomen, showing the stimulating effect of this nutrition.

On December 14th, forced feeding through a nasal canalized bougie was started and continued until the 22d. On December 23rd, a nasal tube was left in the stomach for feeding, and a new tube was introduced on December 28th. On December 31st, the patient died.

The nasogastral feeding made such a deep impression on me that I thought this method of nutrition would be useful in cases of mental derangement in which the patient refuses food. I then had a conference at Ward's Island, New York State Hospital, with Drs. Haviland, Folsom, Adams and Davidson, in an effort to have this method of feeding tried in appropriate cases of insanity in which the patient refused nourishment. This was on April 19, 1929.

Thereupon, the nasogastral canalized bougie was introduced into two patients suffering from catalepsy. Liquid food was given about every four hours and the tube fastened by a safety pin to the shirt of the patient and left in place—for nutrition. On April 26th, it was found that one of the two patients had kept the tube in place three days; the other, one day. The tube was reinserted in one patient (Miss S.) and another tube introduced into the other patient, but soon after the first feeding this patient pulled out the tube. The house physician at that time did not care for this procedure and said he could feed the patient by a regular stomach tube of smaller size. As it was inconvenient for me to go to the hospital and have arguments with the house physician, I dropped the whole matter and did not work on it.

The first case, described above, of nasal feeding in prolonged instances of coma shows that nasogastral feeding with a small canalized bougie is feasible and sometimes of great benefit to the patient.

The expression nasogastral alimentation I would like to retain for similar instances. But to use "nasal alimentation" for "duodenal alimentation" does not appear to me to be correct. For the nose as such has nothing to do with duodenal alimentation.

It may not be out of place to say a few words with regard to the origin of duodenal alimentation, which is briefly as follows:

During January 1910 I treated a patient (a physician) who suffered from a gastric ulcer and diarrhea. He was given sedatives and kept in bed for observation and treatment. I was anxious to examine the duodenal contents and therefore introduced the duodenal tube. The next morning I aspirated the duodenal contents and found the pancreatic juice and the bile all right. I asked the patient whether the tube annoyed him in any way, and he said no. Then I said to him, "Let us try and give you liquid food through the tube, in this way skipping the ulcerated stomach. Perhaps you will be able to retain this nourishment". The fact is, the vomiting and diarrhea stopped and the patient recovered, after a period of two weeks. Dr. S. was the first patient who made a perfect recovery after two weeks of duodenal alimentation.

Duodenal alimentation has proved of great usefulness in many conditions of body disturbances. In contrast to formerly used rectal feeding, which absorbs fluids very well, but very little food, duodenal alimentation utilizes the whole amount of food given and is of great importance in many instances of digestive diseases requiring rest and building up the body.

20 East Sixty-third Street

THE USE OF THE NEWER TYPE PESSARY IN WOMEN PAST THE MENOPAUSE

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One feels almost compelled to apologize for again introducing, shall we say "intruding" the subject of the pessary into medical literature. So much has been written and the ground so thoroughly covered that there appears little to add to the discussion. Our only excuse is the adaptation of certain new or modified types of pessaries and the advantages these offer in certain cases. We shall limit this brief discussion to a consideration of the use of the newer type pessary in women past the menopause, with the purpose of considering the particular advantages they offer.

I. Uterine Displacement in Women Past the Menopause

The question naturally arises, "Are particular types of displacement characteristic of postmenopausal and senile women?" Reis (1) points out that "prolapse is essentially a disease of advanced years, most common between the ages of forty-five and sixty-five." Eastman (2) calls attention to the fact that "sixty-five has been taken as an arbitary basis for determining senility, but that "women much younger may present evidence of senility exceeding that found in women many years older." In the same article Eastman also points out that "the majority of cases of prolapse result from injuries received at childbirth."

If it be true that uterine prolapse is primarily a disease of the aged, and if it also be true that the majority of cases result from injuries received at childbirth, then we have a right to inquire as to the nature of the obstetrics practiced at the time these women were delivered.

It is obvious that women who are seventy-five years of age today must have been delivered of their children in the vicinity of forty years ago. Obstetrical practice has witnessed notable advance in the last forty years, or even thirty years. We should like to know how many of these women who come to us now with a uterine prolapse, due possibly to faulty obstetrics during their childbearing years, were delivered at home and how many in the hospital. Even today home deliveries are not all that might be desired in the matter of scientific obstetrics. What may have been the case nearly a half century ago? We shall not contend that home obstetrics may not be conducted with due regard to scientific practice. What we do say is that it may be far afield in this matter. I have discussed this question elsewhere (3).

It may well be that the newer methods of obstetrical anesthesia will have considerable bearing on the safer and less damaging deliveries of the future. This fact should contribute, in no small measure, to the minimizing of birth injuries. Sheldon (4) in his article on local infiltration anesthesia points out that this method is "technically within the scope of any physician qualified to undertake obstetrics", and he further states that "spontaneous breech deliveries, manual rotation of the head, Scanzoni's operation, the delivery of the face and brow presentations after flexion, and even mid-forceps deliveries can often be conducted under local infiltration anesthesia."

Irving (5) points out that complete prolapse during pregnancy will probably correct itself as pregnancy advances.

Dennen (6) calls attention to the advantages in the improved types of obstetrical forceps and the better understanding of their application and use. If this makes for better obstetrics in the coming generation, then we have still another reason for anticipating a lowering in the number of cases of uterine prolapse in the women of the next generation.

If, therefore, it be true that prolapse is primarily a disease of the aged, or at least of older women, and that the predisposing cause is commonly faulty obstetrics of a half century ago, then, with the more general knowledge and practice of scientific obstetrics, we have a right to expect that the next generation would show a definite decrease in senile cases with uterine prolapse. This must await the recordings of a medical historian to come.

In most of the cases in our series we found that the women had borne children, that they were injured at delivery, that the deliveries were mostly in the home, and that the injuries were either not repaired at the time or apparently improperly repaired.

II. Type and Use of Pessaries After the Menopause

Dorland (7) defines a pessary as (a) "an instrument placed in the vagina to support the uterus or rectum" and (b) "a medicated vaginal suppository." It is with the first of these types that we are concerned.

As to the origin of the pessary we are uncertain. It was an artist, Pieter Camper (1722-1789) who is said to have introduced the pessary, according to Garrison (8). That the pessary eventually fell into disrepute is indicated by the same author who also points out (9) that there was what Priestly called the series of *crazes* in gynecology. "Hewitt in England, Velpeau in France, Hodges in America, championed the cause of the pessary for the treatment of backache or pelvic pain, and every gynecologist felt himself called upon to invent one or to modify some one else's; the unfortunate uterus all the while being as Allbutt says, either 'impaled on a stem or perched on a twig' ".

The pessary has passed through many stages of favor and disfavor. Its place today seems better understood than at any period in the past. The stage of the *craze* has passed and we recognize that its use is limited but within that limitation it has a definite and scientific place.

As Reis says (1), "There is, however a small but definite group of patients in whom surgical intervention is contraindicated." It is this group of women chiefly beyond the menopause in whom we are concerned in this discussion.

When we come to a consideration of the types of pessaries adapted to the support of uterine prolapse in the aged, we are first reminded of the fact that the pessary is not primarily an instrument for correction

but rather of support after the correction has been effected by manual or other means. Of the types commonly recommended authors vary somewhat. Crossen (10) mentions the Thomas, Smith or Hodge for milder cases, and the Menge, Gehrung, Hewitt, and the cup and belt for more severe cases.

Greenhill (11) says, "In elderly women with prolapse of the uterus who refuse operation or cannot be operated on, a variety of pessaries may be used. In some cases a large ball pessary will give relief; in others a soft rubber doughnut pessary and in still others a cup pessary of the type described by Gellhorn may be used with success."

Reiss (12) says, "Various pessaries have been devised which will give permanent palliation. The majority of these depend upon the presence of a sufficiently good pelvic floor to provide a support for the pessary, which in turn carries the prolapsed uterus." He suggests the ball type, Gellhorn's modification of the Menge and Mackintosh type of cup and stem pessary.

Phaneuf (13) mentions five indications for the use of the pessary, the fifth being "Uterine prolapse, especially in elderly women, in whom there exists definite contraindications to operation." For such cases he suggests the Raudenbush and Gellhorn as the instruments of choice. Our experience leads us to favor the Menge and the improved Emmert-Gellhorn rather than the ball or the soft rubber doughnut.

Before proceeding to a consideration of cases a few pertinent comments may be in order. Occasionally we find that the type and size of pessary which, according to measurement, ought to maintain correction, is uncomfortable, and the type and size that is comfortable does not maintain correction. Again the pessary will relieve the prolapse but not the incontinence, and vice versa. In other instances both cystocele, rectocele and prolapse are relieved but the urinary incontinence persists. Not infrequently the pessary which fits properly and is inserted easily causes sufficient regeneration of muscular tone so that the size and occasionally the type may be changed. Rarely has a patient complained of interference with intercourse. In one instance the patient was using a diaphragm which she found impossible to remove without also removing the pessary.

"Will the wearing of a pessary cause cancer?" is a question the patient is not unlikely to ask. Meigs (14) says, "Trauma due to pessaries, has seemed to be responsible in a few cases." He also reminds us that the theory of chronic irritation and laceration has had to give way.

III. Case Reports

Our series of cases fall into three general classes. We refer now to the older women with prolapse: 1, those that refuse operation; 2, those in whom surgery is contraindicated; 3, those using the pessary for temporary relief and who postpone operation for one or another reason. The outstanding symptoms of which these older women complain are (a) "a womb that is falling out"; (b) "pain in the lower back"; (c) "pain in the abdomen", and (d) "inability to hold the urine".

The four cases we present here are intended to illustrate four definite types of prolapse or symptoms and the pessary offering relief in each case. We have intentionally omitted all details of history except such as relate definitely to the pelvis.

CASE I.—The patient was a fifty-two year old Irish-American housewife whose work, because of an invalid in the family, caused her to be on her feet much of the day, going up and down stairs frequently. She came to us with a complaint of pain in the back, a womb that was protruding with marked vulvar irritation, and urinary frequency. The patient had borne one child. Physical examination revealed a marked perineal laceration with inadequate repair and a definite procidentia accompanied by a rectocele and cystocele. This patient was a good operative risk and we advised hospitalization and operation. This she agreed to but wished to postpone the time because of family duties. She was fitted with a Menge No. 4 pessary which gave definite relief. She returned for the usual monthly changes, each time being advised of the advantages of the operation. The pessary has proved so satisfactory that now, after five years, she is still delaying surgery.

CASE II.—This patient was an American school teacher, fifty-six years old, married, with two children. She complained of low back pain and pain in the upper left quadrant of the abdomen, "as if the abdominal contents were falling out." Physical examination revealed a second degree prolapse, with tenderness in the vault. This patient was a poor operative risk and we felt that surgery was contraindicated. A Smith pessary was first employed with unsatisfactory results, and was later replaced by a size two and one-half improved Gellhorn. During the first month, both back and abdominal pains were definitely relieved. The patient has continued with this pessary to the present time.

CASE III.—This patient was eighty years old, an American housewife. Her chief complaint, when she came to us, was of urinary incontinence. For several years she had been obliged to wear a diaper constantly. The patient had had five pregnancies; two children living and well, two stillborn, and one miscarriage. In 1935 she had a pelvic repair. Since then she had experienced a third degree prolapse, a rectocele and a cystocele. An improved Gellhorn pessary, size three was inserted to maintain the replacement, which served satisfactorily, but because of the discomfort and difficulty in removal, we changed to a Menge which satisfactorily maintains the position of the uterus and relieves the urinary symptoms.

CASE IV.—This patient, a seventy-six year old American housewife, came with a complaint of weakness and inability to go about the house as usual, and constant urinary dribbling. She was wearing a diaper bandage to hold the uterus in place and care for the constant soiling. She had had one child and "bad laceration requiring twenty-eight sutures." Physical examination revealed procidentia, rectocele and cystocele and vulvar dermatitis. The uterus was replaced with some difficulty. A ring pessary was first introduced but was extruded on the slightest motion. It became necessary to use the large size Emmert-Gellhorn pessary in order to maintain the uterus in position. This gave satisfactory relief. The patient was able to be up and about the house and on the street without difficulty. The following month this pessary was removed with some difficulty. The second month the vaginal walls had apparently regained considerable tone, so much so that the pessary could not be removed *in situ*. It became necessary to cut off the stem which was removed separately,

following which the removal of the pessary cup was effected. A Menge, size four, was then introduced and while it relieves the pelvic symptoms, it does not relieve the urinary incontinence, as did the Gellhorn.

Summary

The following topics have been discussed:

1. Urinary deplacements in women past the menopause.
2. The question as to the relation of senile prolapse and obstetrics in the past, with particular reference to home obstetrics.
3. The possibility of a decrease in senile prolapse with more scientific obstetrics has been considered.
4. Certain types of pessaries have been discussed.
5. The development of the pessary have been briefly discussed.
6. Four cases have been presented to illustrate: (a) the pessary as a palliative measure; (b) the Gellhorn pessary to relieve low back and abdominal pain; (c) the Gellhorn pessary in a case of senile procedentia with definite relief of all symptoms; (d) the Menge pessary in senile procidentia with the relief of a prolapse and only moderate relief of urinary symptoms.

Conclusion

We submit that in women past the menopause, with second and third degree prolapse, the pessary still occupies an important place as an instrument to maintain the uterus in position. Our experience has led us to discontinue the use of the ball type and the cup and belt type in favor of the Menge and the improved Emmert-Gellhorn pessaries. Both these types favor drainage, are more comfortable to wear, and better conform to the pelvic anatomy.

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16 BROADWAY

A CONSTRUCTIVE PLAN FOR A HOSPITAL EXERCISE UNIT

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In recent years, pathology and treatment of striated muscles in different conditions has been widely discussed. Because of a rising interest in fields so far apart as muscle rehabilitation after injury, muscle rehabilitation in infantile paralysis, muscle rehabilitation in cerebral palsy, and muscle rehabilitation in various other conditions, we are faced with a growing necessity for a common denominator for all these seemingly separate and diverse conditions. This common denominator is obviously the physiology and pathology of the skeletal muscle itself, a subject which so far has been treated like a stepchild. While the medical student is educated to think of heart, lungs, liver, etc., as separate, well defined entities functioning as specialized units, he gets no such impression of the striated muscle. Yet the striated muscle not only represents the bulk of the weight of the human body and its means of locomotion, but it also represents an essential organ for the circulation of blood and lymph, and is the only organ of expression of our central nervous system. This holds true of neuromuscular conditions such as infantile paralysis and cerebral palsy, because the end result, in the last analysis, is destruction or impairment of muscle action.

The way to restore, or at least partly restore muscle function lost from the effects of these pathologies, is the same for all of them—*exercise*. Starting with galvanic stimulation or under water exercises performed to eliminate gravity, and going up to exercises against gravity, or exercises with resistence, the method has one principle in common, that of systematic training of skeletal muscles.

The results of exercises when properly used have been marked, sometimes astounding. These exercises have been accepted in the treatment of trauma, in posture correction, in the treatment of injury to or disease of the central or peripheral nervous systems. Their use has also begun to be applied in a number of other fields, such as in the treatment of arthritis, the treatment of postpartum cases, and rehabilitation in heart disease. In conditions of the respiratory tract, such as asthma, they have proved to be of valuable aid, and as postoperative treatment in the majority of surgical cases, they have been instrumental in reducing the convalescent period if given properly. The army medical corps has recognized its importance by giving it a large place in its rehabilitation program.

So far, the approach to the problem of devising proper exercises and finding their proper indication has been incoherent. Individuals interested in a specific problem of their own particular field have had to start from scratch to evolve a system applicable in a limited field because they do not have the benefits of a common pool of experiment and research. This absence of

a common starting point leads to inconclusive results in all fields. Conversely, systems and rules thus found have been adapted haphazardly to purposes for which they were never originally intended and are not particularly suited. Unless an intelligent common basis can be found, in time, the valuable field of exercise will be greatly retarded in its development and might even encounter serious setbacks because the lack of proper directives and of precise indication and prescription will lead to the hit or miss approach of "just exercise."

The way to avoid this is to create a special exercise nucleus in the department of physical therapy, an exercise nucleus which should be organized with a view to giving the specific exercise treatments for all the various pathologies, to organize the study, research and teaching of these exercises, and to develop a clear-cut method of approach to all of the various problems involved. The following suggestion of an exercise unit might illustrate one way in which this can be done.

Program for Rehabilitation Through Exercises

Purpose: Treatment of patients
Education of doctors and medical students and physical therapy technicians
Research

Treatment: Should be organized in the following groups:

I. Orthopedic group:
1. Postural defects. Juvenile and adult footcare.
2. General orthopedic problems. Preoperative care and evaluation and postoperative care.
3. Traumatic cases: Acute and Chronic

II. Neurological group:
1. Nerve injury—congenital and acquired
2. Brain injuries
Adult (hemiplegia, etc.)
Juvenile (splastic conditions, etc.)
3. Spinal cord injuries, chronic conditions, infantile paralysis, etc.

III. General group:
1. Medicine: Arthritis; cardiac conditions; respiratory conditions; convalescence.
2. Gynecology and obstetrics: prenatal and postnatal care; gynecological conditions.
3. Surgery: preoperative and postoperative care; rehabilitation; burns.

Education:

Theoretical instruction in:
1. Principles of physical education, training, and coaching.
2. Special exercise instructions in the fields outlined above.

Practical experience:
1. General exercises and teaching of them.
2. Special practical experience in above named groups (orthopedic, neurological, general).

Medical students would get limited, theoretical instruction.

Doctors specializing in physical medicine would receive both theoretical and practical instruction.

Technicians and students for a physical therapy degree would receive both theoretical and practical instruction.

Public relations:

Part of the educational problem is education of the public to the understanding of the importance of regular normal exercise for health. Understanding of good posture, foot problems, occupational problems, etc.

Research:
1. To be based on clinical research in individual divisions as outlined.
2. Theoretical, experimental research conducted in collaboration with departments of physiology, physics, anatomy, etc.

It is of the greatest importance that the problems should be raised by doctors in practical daily contact with patients and with the actual need for new information and directives in mind. Otherwise the approach, if theoretical only and made by theoreticians alone, will not have real and immediate practical results.

3. Collecting literature on both general and therapeutical exercises.
Organizing meetings, conferences, correspondence.

Layout:

A complete floor or section for the exercise rooms plus necessary examination cubicles would be optimal. Next best would be subdivisions into orthopedic, neurological, general. Units with at least one exercise room (gymnasium) each, and separate examination cubicle for admission and check ups.

There should be one admitting clinic for all (or every one independent).

Unit operating as frequently as possible, preferably daily.

Admissions: Should be possible through:
1. Referred by clinics and wards.
2. Direct admission of postural, occupational, and athletic problems should be possible, and handled in admission clinics with specialists (orthopedic, medical, gynecological, etc.) helping the admitting doctor in charge.

A ward for the treatment of special cases is highly desirable; cooperation with wards of various departments might be begun.

More decisions to keep patients hospitalized for physical therapy for as long a period as required should be made.

Application of Plan

The following is a practical application of this plan, first, in the treatment of the patient, and second, in the education of the student.

Treatment of the Patient

The patient would be referred after a general examination and diagnosis to the exercise clinic. There the patient is examined by the doctor with a special view to motor disabilities. The examination should determine the details and qualities of this disability. For example, in a case of postoperative meniscus, the findings might be atrophy of the quadriceps muscle with marked atrophy and lack of tone of the vastus medialis muscle, shortening of hamstring muscles and lack of elasticity, slight atrophy of leg muscles and limitation of knee motion from, let us say, 170° to 60°.

The examining physician will write an explicit prescription, not just exercises. The prescription in this case might be as follows: "Strengthening of quadriceps by flexion and extension of the knee, eliminating gravity (this patient cannot take resistence), toning up of the vastus medialis muscle by setting and intended rotation, and stretching of hamstrings by flexion and extension in a supine position with aid in extreme extension, the minimum atrophy of the leg muscles being neglected for the time being. These exercises must be done every hour on the hour for five minutes in order to get in over an hour's workout in a day without tiring the patient." Pain and fatigue limits thus are observed. After a week, the patient should be reexamined and, if progress is noted, the prescription is extended. Straight leg raising might be added and extension against gravity might be used. Exercise periods might be reduced to one exercise period every two hours for ten minutes. The exercise prescribed might be set down in exercise schemes and indexed to simplify prescription writing, but not unless the technicians are thoroughly indoctrinated and the physician can be reasonably sure that what he prescribes is carried out in the correct way.

Similar prescriptions should be given in every individual case. Whenever group work is done, similar cases must be grouped together and the progress of each individual charted and followed separately. In more advanced cases one individual can be transferred

to a more advanced group, while another is kept at the initial place or referred for individual treatment if necessary.

Education of Students

A student will have to go through a basic instruction course in normal exercises for normal muscles, and will have to be thoroughly informed in normal exercise systems, both theoretically and practically. The practical part of this training should consist of regular exercise classes in which he will not only be able to get direct experience of the various exercises, but will also feel on his own body the effect of fatigue, stretching, and eventual strain. The next step should be a theoretical and practical instruction course in various different fields of therapeutic exercises as mentioned in the organizational outline. A student who has gone through this training will be really equipped to handle the practical problems as they present themselves at the clinic. This training will suggest further problems to him which will give him the real basis for intelligent research, namely, to find answers to questions raised in the course of his own experience.

Results

The results that can be obtained in such an exercise unit will be, 1, thorough and effective treatment of the patient; 2, valuable material for research; 3, education of a sufficiently large number of doctors and technicians in recognizing and dealing with the detailed problems of muscle rehabilitation. They will be equipped to carry out the systems of the existing elaborate programs for rehabilitation and make them effective instruments instead of merely well thought out but ineffectual structures.

In the widest application, these doctors and technicians can be working instruments in statewide rehabilitation programs for crippled children, war injuries, cardiac and posture programs affiliated with the public health and public education systems. They will also aid in the treatment of occupational and athletic injuries.

Without a well trained personnel, any setup in the field of muscle rehabilitation will remain a worthless theoretical system and not an effective working reality.

36 CENTRAL PARK SOUTH

THE TREATMENT OF OCCUPATIONAL OR ERG DERMATOSES WITH TITANIUM OXIDE

A Preliminary Note

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Occupational dermatoses contracted in the pursuit of various occupations have been in the past, and are at present, therapeutic problems. The usual procedure recommended in such cases is cessation from work, but this is neither practicable nor feasible, when one considers the economic angle. It is not always possible for the worker to find other suitable employment and in many instances it is not feasible to undertake a sudden change in a hurried and haphazard fashion. It is an important problem and must be dealt with intelligently.

The agents that give rise to occupational dermatoses are so varied and numerous that it would be impossible in this preliminary note to enumerate and dwell on them individually. The symptoms of these dermatoses are too well known to the general practitioner and the dermatologist to require any elaborate and lengthy descriptions. If in doubt, the patch or scratch test of the material or materials in question will determine the nature of the affection and its offending etiological factors.

The problem that confronts us is how to treat such cases successfully without the patient having to sacrifice his work. Many remedies have been advocated and tried, only to be speedily discarded as ineffective. One therapeutic agent, however, has proved of inestimable value in the treatment of these dermatoses, by giving the sufferer either temporary or permanent relief, and in some instances immunity or nonsusceptibility to the causative factor. This substance is titanium, a rare metallic element, which exists only in the form of the oxide.

In a subsequent article I shall discuss at length, supplemented by case reports, the *modus operandi* of the method of treatment. For the present, however, the following suggestions offered to the practitioner may suffice:

1. Wash the affected parts (hands and arms) with a soapless or superfatted soap.
2. Dry thoroughly with a soft fabric or tissue.
3. Apply the ointment at night by spreading or lubrication, *avoiding undue friction.*
4. Wash the next morning with the same soap and dry thoroughly.
5. Before starting to work apply the ointment to the affected areas by lubrication *and not by friction.* (I stress this latter point.)

Formulæ for Ointments

The following are the formulæ for the ointments (to which one-half to two percent of menthol may be added for its antipruritic effect). The ointment may be used either in a one percent or two percent strength, according to the severity of the process.

One Percent Ointment

Titanii oxidii (C.P.)	0.60
Aquaphor	60.0

M. et ft. ung. sig. and apply.

Two Percent Ointment

Titanii oxidii (C.P.)	1.20
Aquaphor	60.0

Meth. sug. and apply.

I am at present compiling clinical data on this treatment, which I shall shortly submit for publication.

656 MACABEES BUILDING

Editorials

The Systemic Management of Burns

Much has been said and written concerning the *local* management of burns since these constitute a large percentage of "accidents", in both civil and military life, but not much has been said about the *general* management. Burns and scalds have plagued mankind ever since the discovery of fire, and they will continue to be a hazard to the end of time. The use of oil, especially gasoline, accounts for a great many burns, and next in frequency are burns due to chemicals (phosphorus), and to electric currents.

Our Navy has had an enormous experience in World War II with burns due to explosions. Men have been thrown into water covered with burning oil; literally they were "between fire and water", fighting for their lives. Out of this has come an important "release" by the Division of Publications of the Bureau of Medicine and Surgery, U.S. Navy. This was published in the *J.A.M.A.*, June 16, 1945. It is called a "memorandum prepared by a committee appointed by Dr. Alfred Blalock, chairman of the subcommittee on shock". The authors are Doctors Harkins, Cope, Evans, Phillips and D. W. Richards, Jr., and the article seems to have been greatly condensed as a result of an enormous amount of laboratory and bedside work.

The article is rather intricate in detail and only the highlights can be mentioned here. It may be sufficient to call attention to the necessity of studying the special food and liquid requirements of each individual who has suffered more than ten percent of body surface burn. Persons with burns of lesser degree usually may ingest food and fluid according to desire, but severe burns are often fatal, and demand an exacting scientific regimen. With extensive severe skin burns there is marked exudate of the fluid and cellular elements of the blood, with dehydration, decrease in plasma volume and relative increase of red cells. In burns about the face or air passages, pulmonary edema may develop in patients who seem to be doing well otherwise, if there is too much fluid intake. On the other hand, where there is much fluid exudate, this must be replaced by a *definite* amount of liquids and not in haphazard fashion. Too much or too little may be equally pernicious. Therefore, the laboratory must supply needed information as to blood concentration—hematocrit, hemoglobin, albumin, Rh typing, specific gravity, etc.

There are three dangerous periods: 1, period of shock; 2, period of toxemia, and 3, period of burn anemia and hypoproteinemia. Up to forty-eight hours after injury the signs of burn shock may be indefinite or misleading; therefore, the presence of shock (first period) should always be assumed and treated as such. It calls for vigorous fluid therapy, but not too much food. Later, food therapy may exceed fluid therapy with safety. After forty-eight hours and up to one hundred and twenty hours (second period), and even as late as the third week, there may be fever, jaundice, anuria, stupor, delirium, circulatory collapse—all being the effects of "auto-poisons", a fact brought out by Dr. Fenton B. Türck many years ago. Finally, in the third period, there has been a masking of these blood conditions by toxemia, and they now appear as red cell destruction, hemolysis, hemoglobinemia, hemoglobinuria. "It is likely that failure to maintain nutrition is the most important factor in the production of both, and every effort, therefore, should be made to keep the burned patient in nitrogen equilibrium throughout the illness."

Therapy is intravenous and oral. Whole plasma, administered intravenoûsly, supplies both fluid and electrolyte. If it is not at once available, physiological electrolytic or isotonic solution of sodium chloride should be given. Plasma, however, is of little use beyond the third day and is seldom needed after the first critical twenty-four hours. The urinary output must be measured and exactly known at all times, and ought to be above one hundred cc. per hour during the first forty-eight hours. Fluid administration depends upon what is done with it in the body. Anuria is not uncommon. As to oral therapy, each case is an individual problem of dietetics and nursing. Diet should be high in calories, proteins, carbohydrates, vitamins and iron. The authors give suggestions and "formulas" which may, of course, be varied according to the case in hand.

The important thing is to recognize burns as systemic and not merely local conditions which can be cured by "putting something on".

Uses of Fiberglass in Medicine and Surgery

Probably the most outstanding quality of glass is its fragility. Who has not broken a prized pitcher or mirror? But with modern advances in experimental chemistry this concept must be changed, for we now have glass which can be drawn into threads and woven into cloth. Such glass fibers range in diameter from twenty-three hundred-thousandths to thirty-eight hundred-thousandths of an inch. The Owens-Corning Fiberglass Corporation of Toledo has just published a brochure which sets forth what has so far been accomplished in "medical research". It offers to supply qualified investigators with "samples". Thus far the "uses" to which this strange texture has been put comprise measurement of nitrogen loss from the exudate from burned human skin, tracer threads in surgical sponges which may become "lost" in the abdomi-

nal cavity, experimental surgical sutures, culture of microorganisms, blood plasma filters, air-borne cross-infection control, pollen and dust control, penicillin production, fiberglass plastic artificial limbs, and insulation of sterilizable closed motor.

Scholz and Mountjoy (*Amer. Jour. Surg.* June 1942) say that "fiberglass suture material has been so satisfactory in our hands in the past several years that we believe it is worthy of extensive trial". The glass thread is drawn so fine that 204 filaments must be combined to make a strand measuring forty-five thousand yards per pound. The strands are strong, soft to touch, and resemble silk, but are easier to manage. Knots are firm. There is no "soaking up" of secretions and perfect sterility of sutures can be maintained. There is no swelling of the filets, no tissue reaction. The foreign-boreaction common to all other sutures is missing. There is no exudate, edema or cell proliferation; therefore no interference with wound healing. Fiberglass filets are sterilized by autoclave, boiling, dry heat, and by chemicals with the single exception of hydrofluoric acid. It can be re-sterilized many times. Most of the surgical experiments were made on dogs, but some experience was obtained in surgery of the head and neck of humans with no untoward results whatever.

The manufacturers state that "Fiberglass is an inorganic, nontoxic, nonallergenic, nonsensitizing and chemically stable substance which produces no harmful effect upon human tissue . . . it is a pliable substance, possessing great tensile strength, and a high degree of dimensional stability . . . a marked resistance to high temperatures as well as to acids (one exception) steam and corrosive fumes". Although the sutures do not take up water, when formed into a wick, the fibers have strong capillary action. This seems to be a curious anomaly. Again, the fibers are transparent, but when specially treated, they can be made radio-opaque, and, therefore, detectable by x ray.

Manufacturers of penicillin use fiberglass "cloth" to trap air-borne bacteria and to avert contamination of the culture. They also employ glass fibers as a base for the culture of the mold, Penicillium notatum.

The portable apparatus used in blood transfusions on the field of battle was often defiled by dust, flying sand, etc. A small strip of fiberglass tape inserted in the flexible tubing will filter out any undesired particles when plasma fluid passes from the stock bottle to the vein of the wounded soldier. Moreover, no bulky housing was required for the glass tape filter and it can be sterilized for repeated use. Thus a small but vital factor of safety was added to the protecting of the wounded from foreign body or infected material, thus preventing fatal shock after being wounded.

And so a new weapon against disease and death bids fair to assist the surgeon both in the quiet of a civilian operating room, or amid the noise and smoke of battle. Moreover, the "outlets" for adaptation to new uses are seemingly limitless. Thus industry once more becomes a true ally of medical science as it often has been in the past.

Res Ipsa Loquitur in Malpractice Actions

It is only of late years that the doctrine of *res ipsa loquitur* has been invoked by plaintiffs in malpractice actions. Originally the application of the doctrine was confined to cases involving the use of apparatus in the hands of bailees or of the users of methods of transportation such as carriers, where such apparatus is under the sole control of the defendant. In Michigan the courts refuse to apply the doctrine in any negligence cases. Certain cases elsewhere have denied its applicability in malpractice actions. Where it has been applied in such cases the tendency seems to be to distinguish between "professional treatment" and the inspection and use of appliances and apparatus more or less connected therewith. In any case the presumption of negligence raised may be rebutted by evidence offered by the defendant. The following case is probably fairly representative of the attitude of the courts toward the doctrine in malpractice actions.

The action was against an x ray examination corporation, its doctors and a nurse, for personal injuries sustained through the breaking of the pin of a fluoroscopic table, throwing the plaintiff to the floor. The plaintiff claimed defendants made no examination of the table when it was purchased and especially did not sufficiently inspect it from time to time. The California District Court of Appeals held that the plaintiff was an invitee in defendants' office and as such defendants were bound to exercise reasonable care to protect her from being injured. But, in the exercise of reasonable care, they were not bound to make exterior examinations of the table. They were bound only to make ordinary examinations. Evidence of negligence of the nurse was held not to be shown.

The plaintiff introduced no direct evidence of defendants' negligence. In reliance on the doctrine of *res ipsa loquitur* she contended that when she had shown that the fluoroscopic table, the thing which had caused her injury, was under the defendants' management, and the accident was such as in the ordinary course of things does not happen if those who have the management use proper care, an inference arose, in the absence of explanation by the defendants, that the accident was caused by a want of proper care.

The court, however, applied a rule which it quoted from *Wharton on Negligence,* section 825, as follows: "Those latent defects which are either concealed as defective workmanship, or are incidental to the ordinary wear and tear of houses, are among those casual-

ties which no man can avoid without the exercise of that extraordinary care and vigilance which the law does not impose". This rule, though addressed to houses, the court holds, under the supporting decisions, to be equally applicable to the appurtenances and furnishings of a house.

Applying this rule to the facts of the case it was held that, the defendants having introduced evidence of care of the table and cleaning, inspection and repair at frequent intervals, also that prior to this accident nothing had occurred to indicate any weakness or wear on the metal pin which broke, and that defendants had no notice whatever of any defect in the pin or in the table, the inference on which plaintiff relied was dispelled as a matter of law and the evidence in the record would not support a verdict for the plaintiff. Judgment for defendants was therefore affirmed.

News Items

Ledyard Fellowship.—The Society of the New York Hospital announces that the Louis Cass Ledyard Jr. Fellowship is now available and applications should be sent in before November 15th. The income of this fellowship, which was established in 1939, amounts to $4,000 annually, and is awarded to an investigator in the fields of medicine and surgery or any closely related field.

Evening Psychiatric Clinic at Mount Sinai.—It has been announced that Mount Sinai Hospital, New York, will open during the second week of September an evening psychiatric clinic, which will be devoted entirely to the treatment of men and women discharged from the armed services. According to present plans the clinic will be held on Tuesday evenings, with the purpose of a second session being held if circumstances permit.

Infantile Paralysis in New Jersey.—A total of four hundred and fourteen cases of infantile paralysis, with forty-three deaths have occurred in New Jersey this year, according to an announcement by the State department of health on August 23d. Thirteen new cases and one additional death reported on that day brought the total for August up to two hundred and twenty-nine cases and the total for July and August up to three hundred and eighty-seven. During July and August 1944, the total number of cases of infantile paralysis was one hundred and ninety-five.

Society for the Study of Blood.—The first meeting of the recently established Society for the Study of Blood was held at the New York Academy of Medicine on June 14th. Addresses were delivered as follows: "Development of hematology in New York City" by Dr. Nathan Rosenthal; "The rôle of the hematologist in the general hospital" by Dr. Eugene R. Marzullo, and "Blood banks of the future" by Dr. Lester J. Unger. The officers elected for the first year are: president, Dr. Alexander S. Wiener; vice-president, Dr. Paul Reznikoff; secretary-treasurer, Dr. Peter Vogel. According to *Science*, scientific meetings of the society will be held three times a year when topics relating to hematology, blood grouping, and blood transfusions will be discussed.

Merger of Orthopedic Hospital with Medical Center.—The New York Orthopedic Dispensary and Hospital and the Presbyterian Hospital at the Columbia-Presbyterian Medical Center have been consolidated and the new corporation will be known as the Presbyterian Hospital in the City of New York. The Orthopedic Hospital will remain at its present site, East Fifty-ninth Street, until the necessary arrangements can be made in the present hospital, but ultimately the facilities of this hospital will be transferred and the building will be sold.

Fellowship for Rheumatism Research.—The University of Bristol has accepted the offer of the Royal National Hospital for Rheumatic Diseases at Bath, England, in conjunction with the Spa Committee of the Bath Corporation, to found a Research Fellowship at the University of Bristol, for research into the causes and treatment of rheumatic diseases. The fellowship will be tenable at Bath. In recognition of Mr. Sidney Robinson's benefactions to the Hospital and the interest he has taken over a long period of years in the problems of rheumatism, the fellowship will be called the Sidney Robinson Research Fellowship. The University has accepted the offer and will, in due course appoint a Fellow and, in conjunction with the Empire Rheumatism Council, lay down the lines of research.

Fund for Penicillin Research.—A trust fund totalling about $84,000 has been raised by fifteen manufacturers of penicillin to be used for scientific research at St. Mary's Hospital Medical School, London, under the direction of Sir Alexander Fleming, according to press reports. This trust fund is to be called the Alexander Fleming Fund and will be administered by Sir Alexander, who is given the "widest latitude". Companies that contributed to the fund include Wyeth, Inc.; Ben Venue Laboratories, Inc.; Cheplin Laboratories, Inc.; Commercial Solvents Corp.; Heyden Chemical Corp.; Hoffman-La Roche, Inc.; Eli Lilly & Co.; McKesson & Robbins, Inc.; Merck & Co.; Parke, Davis & Co.; Chas. Pfizer & Co., Inc.; Schenley Laboratories, Inc.; E. R. Squibb & Sons; The Upjohn Company and Winthrop Chemical Company, Inc.

Cancer Research Institute.—A grant of $4,000,000 has been made by the Alfred P. Sloan Foundation, according to a recent announcement, for a research institue to be known as the Sloan-Kettering Institute for Cancer Research, at the Memorial Cancer Center, New York. In making the announcement Mr. Sloan said the foundation would provide $2,000,000 for the construction of a thirteen-story building, and in addition $200,000 annually for ten years for operating costs. The institute will serve as a central coordinating point between two other Memorial Hospital buildings, and the three will cover the entire block bounded by Sixty-seventh and Sixty-eighth Streets, York and First Avenues. The existing hospital building, erected in 1939, will be enlarged and rearranged to provide space for three hundred beds, while the Dr. James Ewing Hospital, which the City of New York has contracted to build and maintain, will provide space for three hundred more patients. The project, which will be put into construction as soon as war conditions allow, is expected to cost $4,500,000. In addition, money will be needed for projected four-year cancer fellowships and to provide for specialized facilities.

New Medical Journal Announced.—A quarterly journal will be published by the Gerontological Society, Inc., an outgrowth of the American Division of the Club for Research on Aging, according to *New York Medicine*. The editor-in-chief is Robert A. Moore, Washington University School of Medicine, St. Louis, and the first number will appear in the first quarter of 1946. The publishers are Charles C. Thomas, Springfield, Ill. The purpose of the journal is to discuss various aspects of the problems of aging and the care of the aged.

The March of Dimes.—According to a press release from the National Foundation for Infantile Paralysis, the 1945 March of Dimes resulted in the donation of $16,589,874, which is more than fifty percent more than that collected in the preceding year. Of the total amount of funds raised, fifty percent is allocated to national headquarters of the foundation to finance research into the cure and prevention of infantile paralysis and a broad educational program which includes various scholarships and fellowships. The other half of the March of Dimes funds is retained by County Chapters to carry on services to infantile paralysis victims in the 3,070 counties of the United States. In making this announcement, Mr. O'Connor, president of the Foundation, said that while the incidence of the disease this year is high, there is marked improvement over last year when the United States had its second largest epidemic of infantile paralysis, with a total of 19,272 cases.

New York State Buys Metropolitan Sanitarium for Use of Veterans.—Governor Dewey announced on August 21st, that New York State had agreed to purchase the $3,600,000 Metropolitan Life Insurance Sanitarium at Mt. McGregor, N.Y., for $350,000; and that it would be used as a rest camp for returning New York veterans. The property consists of seventy-five buildings and 1,500 acres of land. The sanitarium was opened by the insurance company in 1913 for its employees, especially for those with tuberculosis. The rest camp will be available to veterans as soon as the deal is closed and the necessary staff assembled At least five hundred veterans can be taken care of in the place at one time.

New Departments in Western Reserve School of Medicine.—The formation of two new departments in the School of Medicine of Western Reserve University, Cleveland, has been announced by Winfred G. Leutner, president of the university. These are the Department of Preventive Medicine and Public Health and the Department of Bacteriology, and were created by the division of the Department of Hygiene and Bacteriology. Announcement has also been made of the creation of the Elizabeth Severance Prentiss Chair in Preventive Medicine, which will be occupied by Dr. James A. Doull as head of the Department of Preventive Medicine and Public Health. Dr. Doull is known internationally for his work in public health and preventive medicine, and especially for his studies in diphtheria, the common cold, tuberculosis and leprosy. He is a Medical Director (R) in the United States Public Health Service, and until recently was chairman of the medical library board of the American Leprosy Foundation, a position now held by Dr. Howard Karsner, director of the Institution of Pathology of Western Reserve University.

Personal.—Dr. Charles Fremont McKhann, in charge of research at Parke, Davis & Co., Detroit, Mich., has been named professor of pediatrics at Western Reserve University School of Medicine and Director of Pediatrics at University Hospitals, Cleveland, Ohio. He succeeds Dr. Henry J. Gerstenberger as professor of pediatrics at the University, Dr. Gerstenberger becoming professor emeritus of pediatrics beginning with the next school year. Dr. McKhann was formerly associated with Harvard University and the University of Michigan Medical School, and was visiting professor of pediatrics at Peioing, China, Union Medical College on a grant of the Rockefeller Foundation.

Rear Admiral Charles S. Stephenson (retired) U.S. Navy, has been appointed acting managing director of the American Cancer Society. Admiral Stephenson's specialty is preventive medicine, and his work in cholera, plague and applied physiology is well known.

Colonel Earle Standlee, deputy chief surgeon in the Mediterranean theater since early in the North African campaign, has been named chief surgeon, succeeding Major General Morrison C. Stayer, who has left the Mediterranean Theater of Operations to become chief health officer in occupied Germany. Colonel Standlee had previously been awarded the Legion of Merit Medal for meritorious services rendered during the Tunisian Campaign.

Awards.—Major General Morrison C. Stayer, of Carlisle, Pennsylvania, has been awarded the Oak Leaf Cluster to the Distinguished Service Medal in recognition of his achievements as chief U.S. Army surgeon in the Mediterranean Theater of Operations. The citation lauded General Stayer for the outstanding record of the Theater medical service, through whose hospitals passed nearly a million members of the U.S. armed forces with a death rate of less than one percent.

Colonel Earle Standlee, of Dallas, Texas, surgeon of the Mediterranean area; Lieutenant Colonel Joseph B. Williams, of Savannah, Georgia; Colonel Martin E. Griffin, of Washington, D.C., and Colonel Joseph Carmack, of San Antonio, Texas were recently awarded the Cross of Knight Commander, Order of the Crown of Italy, in recognition of their meritorious services during the war in Italy. The award ranks among the highest given by the Italian government to members of foreign military organizations.

Major General George C. Dunham, United States Army, was decorated with the Distinguished Service Medal at a ceremony in the Office of the Surgeon General on August 9, 1945. The citation by the American Hospital Association stated in part "for performing exceptionally meritorious service in a position of great responsibility from January 31, 1942 to June 8, 1945. In his capacity as Director of the Division of Health and Sanitation, Institute of Inter-American Affairs, Office of the Coordinator, and later as president of the Institute, General Dunham made a great contribution to inter-American relations."

General Dunham, detailed by the Army to the Office of Inter-American Affairs, is well known as the "flying doctor of the Americas," since he directs more than one thousand health centers, antimalaria and other disease control projects, food supply medical and nutritional surveys and experimental stations in conjunction with health authorities of the Republics concerned.

"BUT FOR THE GRACE OF GOD"

PETER J. HAMPTON, M.A.
Cleveland, Ohio

One day in November, 1934, a New York broker went on his last drinking spree. For seventeen years he had been a heavy drinker, drinking as much as two quarts of gin a day. The doctors pronounced him a hopeless alcoholic. His wife threatened to leave him. Friends and relatives alike shunned him. His business career was tottering. Nothing but misery and despair seemingly lay ahead.

Then, out of his very despair, came one last glimmer of hope. No man, he knew, could help him shake off the bonds of liquor, but perhaps God could. With this thought in mind, Mr. Brown, to give the broker a fictitious name, called upon an old friend who, he recalled, had been cured of dipsomania with the assistance of the Oxford Group. The testimony of his friend proved so convincing that Brown decided to throw himself upon the same aid. "In a week," he says, "I had taken my last drink. In a month my appetite for liquor was completely gone."

Several months later, Mr. Brown went to Akron, Ohio, on a business trip. While there his attention was called to the plight of the town's "confirmed drunkard", a physician who had lost his position and was bedridden as a result of his alcoholic excesses. Brown called on him, told his own story, and stayed to pour the physician his last drink. The physician, whom we shall call Jackson, in turn, told an alcoholic friend about the miraculous treatment. He too was cured. The story spread, and converts began to multiply.

Shortly before Brown was ready to return to New York, he met with his newly made friends one evening to discuss plans for passing on their discovery. By the time the little group of reborn men disbanded, every one of them pledged himself to a "full-time avocation of healing alcoholics". That evening saw the birth of Alcoholics Anonymous.

In its ten years of existence, Alcoholics Anonymous has restored thousands of alcoholic men and women to serene and useful lives. Starting with four members early in 1935, the organization reached a membership of five hundred in 1940, with branches in Akron, Cleveland, New York, and Chicago. By 1941 the membership was well over two thousand, with branches in fifty widely scattered localities. Last year, with branches in nearly every state of the Union, the organization counted ten thousand members, five hundred of them in the armed forces. This year the number is well over fifteen thousand, and there are few hamlets in the United States that have not heard about Alcoholics Anonymous.

Compared with the rapid growth of the Alcoholics Anonymous movement in recent years, progress at first was somewhat slow. This condition was due, in part, to the fact that the organization works under the cloak of anonymity. A rigorous enforcement of anonymity was found necessary because of the extreme sensitiveness of alcoholics to prejudice and ridicule. The majority of alcoholics who have joined the Alcoholics Anonymous group are employed. Anonymity helps them to face the world of work on an equal basis with nonalcoholics. The gospel of Alcoholics Anonymous was at first spread only by word of mouth. This too made for slow progress. However, Alcoholics Anonymous has benefited from this slow initial growth. It gave the members of the organization a chance to frame a working formula and a set of therapeutic principles.

Early in 1939, the members of Alcoholics Anonymous, then numbering some one hundred persons, decided that what the movement needed most at that stage of its development was some publicity in the form of testimonials. The best way to reach prospective converts with such testimonials would be to incorporate them in a book describing the movement's program of cure. Someone suggested that the organization take its problem to John D. Rockefeller who, being a teetotaler himself, was known to be sympathetic with reformed alcoholics. Mr. Rockefeller listened with interest to what the representatives of Alcoholics Anonymous had to say. He appointed a representative of his own to investigate their affairs, and upon receiving a favorable report, made it possible for several members to devote their full time to writing the book.

The book, entitled *Alcoholics Anonymous,* was published in 1940. Besides the many revealing case histories found in the book, it contains the first formulation of the Alcoholics Anonymous program of recovery. It is evident from the tone of this program that the therapy which Alcoholics Anonymous has to offer is somewhat religious in nature. The initial step in recovery is belief in God. "We need to ask ourselves but one short question", Mr. Spence, a veteran of Alcoholics Anonymous in Chicago, told me. "Do I now believe, or am I even willing to believe, that there is a Power greater than myself? As soon as a man can say that he does believe, or is willing to believe, we emphatically assure him that he is on his way to recovery."

Far from being dogmatic about matters of religion, Alcoholics Anonymous gives the prospective convert freedom to believe in a God of his own conception. "We discovered", says the author of the book, *Alcoholics Anonymous,* "we did not need to consider another's conception of God. Our own conception, however inadequate, was sufficient to make the approach and to effect a contact with Him. As soon as we admitted the possible existence of a Creative Intelligence, a Spirit of the Universe, underlying the totality of things, we began to be possessed of a new sense of power and direction."

Fundamentally the Alcoholics Anonymous program of recovery is a synthesis of what has been found useful anywhere and at any time in the diagnosis and treatment of alcoholism. The steps followed in treatment do not differ to any extent from those advocated by other mental therapies. The crucial difference is one of instruments. In effecting the cure, the physician, psychiatrist, or psychologist is largely replaced by the layman, a fellow alcoholic; while the appeal for help is transferred from a natural to a supernatural power.

Alcoholics are egotists, and an exaggerated egotism is one of the most persistent causes of alcoholic illness. A religious awakening helps to break up this egotism. Hence Alcoholics Anonymous cannot emphasize enough the importance of such an awakening on the part of would-be converts. It is no easy matter to admit that you are helpless. Yet that is precisely what the egotistic alcoholic must do before there is hope of recovery. The true alcoholic has lost control over his drinking. No

amount of will power to abstain from liquor can help him out of his dilemma. But for the grace of God he would remain a drunkard. The memory of past suffering and humiliation, the knowledge of future consequences are no defense against continued alcoholic excesses. The only way out for the alcoholic is to admit defeat and put his case before God. When the alcoholic has reached this point Alcoholics Anonymous is ready to do business with him.

The first thing demanded of the would-be alcoholic convert after he has accepted God is that he "be sincere in his wish to be healed, and have a desire to help his fellow drinkers". Alcoholics Anonymous will answer a call for help any time of the day or night. Helping others is the best insurance, they believe, against their own drinking. Armed with this knowledge, they call on likely prospects. There is first of all an attempt to establish rapport, an attitude of mutual trust, confidence, openness between the Alcoholics Anonymous visitors and the prospect. Alcoholics Anonymous try their best to convince their subject that they understand him, because they have been alcoholics themselves. There is no censure.

One after another the visitors tell the story of their battle with drink in an attempt to draw out the prospective convert. Sometimes it takes a good deal of prodding. More often, the prospect is anxious to unburden. Talking out his troubles to persons who have been alcoholics themselves serves as a mental catharsis. Often such a talking out reveals the primary cause of the alcoholic illness. With the help of Alcoholics Anonymous that cause can be attacked directly. No more need to find excuses for drinking in devious rationalizations. Alcoholics Anonymous offers the would-be convert something much better. It offers to remove the cause of excessive drinking and thereby to destroy the desire for alcohol.

This, of course, is no easy matter, and Alcoholics Anonymous informs the prospect that he must cooperate with the layman therapists assigned to him at all times if he is to be cured. For one thing the new convert must give up drinking altogether and forever. There is no such thing as an alcoholic's drinking in a controlled manner, say Alcoholics Anonymous. This information is a surprise to the prospective convert, for, like most of his kind, he cherishes the hope "that some day he will find the secret of drinking like a gentleman".

The no-drinks-forever rule has cost Alcoholics Anonymous some good prospective members. There are those who will do anything asked of them to get well except give up drinking for all time. But Alcoholics Anonymous are adamant on this point. They foresee relapses on the part of the convert, to be sure. They even permit him to taper off from alcohol. But eventually he must become an absolute teetotaler. To soften the blow of this measure somewhat, Alcoholics Anonymous points out to the convert that he does not have to take an oath that he will completely abstain from liquor; nor does he have to sign any document to that effect. All Alcoholics Anonymous wants him to do is to live on a twenty-four-hour basis of abstention.

Next to belief in God, a sincere desire to quit drinking for good, and the ambition to help other alcoholics, Alcoholics Anonymous stress the moral and mental inventory the new convert must make. The listing of his virtues and faults, assets and liabilities, helps the convert in making a true self-appraisal and thereby furnishes the pattern for his rehabilitation. A personality change must be effected. Thus, for instance, "if a convert has mistreated his wife, neglected his family, or been dishonest in his business dealings, or quarreled with his neighbor, he must not only change his ways, but he must try somehow to repair the damage he has caused". To help him in making such a self-inventory and getting things off his chest, he is invited to attend the regular weekly open house meetings held by every chapter of Alcoholics Anonymous.

Originating with the gatherings in the Jackson and Brown homes in Akron and New York, the open house meetings have become an integral part of the Alcoholics Anonymous program of cure. Located in strategic geographical places, in homes, clubs, churches and hotels in every city and town boasting a branch of Alcoholics Anonymous, these meetings serve as a cathartic release for new members. Here a new member may recite his misdeeds, knowing that his confession will fall on sympathetic ears and will be held in strict confidence. If a new member chooses not to unburden himself before a whole group of persons he may do so before his special Alcoholics Anonymous sponsor, a priest, a minister, a physician, a psychiatrist, a psychologist, or any person who he feels will respect his confidence.

The open house meetings also serve as a clearing place for ideas on diagnosis and treatment of alcoholism, as well as a social gathering place. Alcoholics Anonymous is a dynamic organization. While the basic tenets remain more or less the same from year to year, the particulars of working out the alcoholic cure are submitted to the pragmatic test of experience. Hence suggestions on diagnosis and therapy coming in from various members of Alcoholics Anonymous are carefully weighed, and if found suitable, adopted. Alcoholics Anonymous are a social group. They are fond of attending parties. They like to drop in on their friends. For many this extrovert tendency is responsible for their becoming alcoholics in the first place. They have never learned to refuse a drink at a social affair, and having a constitutional or acquired intolerance of alcohol, they have succumbed to alcoholism. The open house meetings give members of Alcoholics Anonymous an opportunity to indulge in social interaction sans drinks. They give parties at which huge quantities of soft drinks and coffee are consumed; they meet each other for lunch and discuss the happenings of the day; they play bridge, listen to the radio, dance, eat and in general have a good time. In addition to these the Minneapolis group, for instance, offers help in seeking employment, medical service and hospitalization, and help in dealing with creditors, relatives and court officers. In short, the open house meetings serve as a centripetal force that holds members together and keeps them busy. And, as the saying goes, "the busy person is not bothered by the devil".

From time to time open house family meetings are held to which members of the alcoholic's family are invited. At such meetings the principal topic for discussion is the care of convalescents in the home. Convalescent drinkers are touchy and are easily upset. If they can be "kept healthy in body and contented in mind they have a far better chance of complete and permanent recovery". Their defensive attitudes must be broken down. They must feel that they have

the cooperation of their relatives in their struggle against liquor. Many a relapse on the part of a new convert can be ascribed to an undesirable home environment which is often to blame for the convert's alcoholic excesses in the first place. It is not always that the husbands and wives, sons and daughters, parents and siblings of alcoholics are unsympathetic or averse to helping him; more often the family members do not know how to help with the cure of the patient. The open house family meetings of Alcoholics Anonymous have formulated a set of therapeutic rules to be observed by members of the patient's family.

The reeducation of the family to the needs of the convalescent is only one of the features of an extensive follow-up program carried on by Alcoholics Anonymous. In New York, where the activities of the many branches of Alcoholics Anonymous are coordinated, Mr. Brown, with the assistance of a small staff, keeps up to date on the organization's doings. Mr. Brown does not have an office in the usual sense of the word. The address of Alcoholics Anonymous' headquarters is secret, but there is a mailing address: Alcoholic Foundation, Church Street Annex Post Office, Box 658, for general inquiries. Mr. Brown's salary is about $50.00 a week. He will not accept any socalled gifts from big business.

The money to run the national office of Alcoholics Anonymous in New York comes from the royalties of the book *Alcoholics Anonymous,* and a small honorarium raised to help the cause. Back in 1940, John D. Rockefeller gave a dinner in honor of Alcoholics Anonymous to which he invited some of the country's most prominent people including, among others, Dr. Foster Kennedy, the neurologist, and the Reverend Harry Emerson Fosdick. The money collected at this dinner went to establish a fund for Alcoholics Anonymous. The organization's money is now handled by a Board of Trustees consisting of a group of Mr. Rockefeller's associates and several members of Alcoholics Anonymous. Since no membership dues are solicited, the expenses of the local chapters have to be defrayed by voluntary contributions. For the convenience of members, a slotted tin can is usually parked near the entrance of the meeting place into which members may drop their donations.

The incidence of recovery among Alcoholics Anonymous is truly remarkable. Fifty percent, according to Mr. Brown, recover almost immediately upon joining Alcoholics Anonymous; another twenty-five percent recover after a few relapses. The remaining twenty-five percent, made up mostly of psychotics and lukewarm individuals who have joined Alcoholics Anonymous not to be cured, but to escape some impending calamity such as a divorce or the loss of a job, are lost to continued inebriety. Compared with the two to three percent of recovery claimed by medical practitioners for all cases treated, Alcoholics Anonymous has certainly made an enviable showing.

Nothing has influenced medical opinion with regard to the usefulness of Alcoholics Anonymous as much as these percentages of recovery. While there are still some physicians and psychiatrists who feel that Alcoholics Anonymous is short sighted in making its guidance program too much of a layman affair, the majority of professional men are agreed that Alcoholics Anonymous is a boone to the alcoholic and has done more for him than any other agency in recorded history. In many centers physicians are now working hand in hand with Alcoholics Anonymous, "contributing their services and referring their own alcoholic patients to the group". This cooperation is especially evident in such centers as New York, Philadelphia, Chicago, Cleveland and Minneapolis, where the medical profession has given a great deal of actual help and encouragement to Alcoholics Anonymous. Voicing the opinion of medical practitioners at a recent meeting of physicians, Dr. Foster Kennedy of New York, had this to say in behalf of Alcoholics Anonymous: "The aim of those concerned in this effort against alcoholism is high, their success has been considerable and I believe medical men of good will should aid".

Alcoholism, Alcoholics Anonymous agree, is acquired. People are not born alcoholics. What may be inherited is a predisposition to alcoholism. Some individuals are of a sensitive nature and are easily affected by the tensions and strains of modern life. Their personalities are unable to withstand the push and pull exerted upon them by their environment. In an effort to escape the difficulties confronting them they take to alcohol. If, in addition to this escape motive they show an intolerance of alcohol, they are well on the way to becoming alcoholics.

The difficulties that may drive people to excessive drinking are many: "Nagging or domineering on the part of a husband or wife, jealousy or pettiness in domestic or business relations, disappointments in social ambitions, pressure of financial worries, economic uncertainty, the discovery that one's health is precarious, that the life of someone near and dear is in danger". Troubles such as these are the trigger fingers of alcoholism. A healthy personality withstands the strain put upon it and often grows stronger as a result; a diseased personality, characterized by emotional imbalance, succumbs to the strain.

Coupled with an emotional imbalance and an intolerance of alcohol, there usually is to be found in the alcoholic a defective family history. The sibling relationship in the family seems to have a definite bearing on alcoholism. Many of the chronic alcoholics are only children. Others, as boys, have grown up in a family of girls, or as girls, in a family of boys. Some have had a distinct disadvantage in being the youngest child. Still others have had a family background of too much cruelty or too much affection, of too much discipline or of too little. Add to such factors a divorce or two and you have the making of a neurotic child who is not equipped emotionally to face and handle the daily realities of life. In seeking to escape from what appears to them an intolerable situation, they often turn to drink.

Drink "bolsters the neurotic's opinion of himself and temporarily wipes away any feeling of social inferiority which he may have. Light drinking leads to heavy drinking. Friends and family are alienated and employers become disgusted. The drinker smolders with resentment and wallows in self-pity. He indulges in childish rationalizations to justify his drinking—he has been working hard and he deserves to relax, he has a headache, his wife does not understand him, his nerves are jumpy, everybody is against him, and so on and on. He unconsciously becomes a chronic excuse maker for himself" and his habituation to alcohol is complete.

Not all drinkers are alcoholics. to be sure. The casual

convivialist, the social drinker, or the psychotic with whom drinking is only a symptom of a much more malignant difficulty, are not generally classed as alcoholics. An alcoholic is a person, man or woman, whose "abilities, health and social graces have been dissipated by constant drinking and who is not able to stop it without help from the outside". Alcoholics Anonymous has two favorite tests to determine whether a person is an alcoholic or not. First, if a person can limit himself to three drinks a day for a week without getting drunk at least once, probabilities are that he is not an alcoholic. Second, if a person, after having had a few drinks, can leave a party, a bottle, or his favorite bar room without compulsion and without getting drunk, probabilities are that he is not an alcoholic. In short, the alcoholic can be distinguished from the nonalcoholic by the "degree to which drinking has become a personal and social problem to him".

Since alcoholism is no respecter of persons all strata of society are represented. Among members of Alcoholics Anonymous are to be found the professional and semi-professional, the skilled and the unskilled. A business executive may sit next to a housewife at the weekly open house meetings of Alcoholics Anonymous, a clerk next to a society matron. Although the majority of Alcoholics Anonymous are men, a good many women also belong. The ages of members extend all the way from the early twenties to the late seventies, with the majority of members in the late thirties and the early forties.

It is interesting to note that alcoholics are rarely weaklings. Aside from their inability to control their drinking, they have many of the characteristics that make for a salient personality. As a group they show courage, persistence in the face of apparent defeat, pride, sensitiveness, self-respect, sociability, extroversion, independence of thought and temperament. In short, they are the sort of people one would like to have as friends.

WESTERN RESERVE UNIVERSITY

Book Reviews

Obstetric Difficulties

The Management of Obstetric Difficulties. By PAUL TITUS, M.D., obstetrician and gynecologist to St. Margaret Memorial Hospital, Pittsburgh, Pa. Third edition. With 426 illustrations and 8 color plates. St. Louis: The C. V. Mosby Co., 1945. Pp. 1,000. Price $10.00.

The author credits "the war" with giving us penicillin and the sulfa drugs as well as many other medical and surgical "advances". This is true, of course, but it seems too bad that it takes a war to do it. The price seems unnecessarily high. However, great good will come to civilians, and eventually more lives will be saved than have been lost. Penicillin has had spectacular usage in gonorrhea, syphilis complicating pregnancy, pyelitis and puerperal sepsis. Both the Army and Navy are caring for civilian dependents of men in service, and this means women and children. Subjects which are fairly new are x ray diagnosis of position of fetus, and caudal anesthesia. The latter, Dr. Titus rightly observes, comes to us from the urologists who have used it for years with success. One should know that this is not "spinal anesthesia lower down"; for the needle should never enter the spinal canal, but the caudal canal only. The technique is precise and calls for practice on the cadaver. Some months ago, writers on "popular medicine" gave maternal mortality some pretty bad marks; therefore, it is good to know that "the average death rate in twenty-seven major (American) cities . . . in 1930 was 6.95 per 1000 live births . . . in 1940 it had dropped to 2.84". This is excellent for centers of population, but it has, doubtless, improved also for country districts because of almost universal use of the automobile, and good roads over which "complications" can be safely carried. Early diagnosis, speed and excellent hospital facilities have made such things possible. Nevertheless, in spite of "education", women are still too prone to seek inadequate medical care at a most critical time in their lives. This needs to be stressed still more through the printed word and radio "talks".

Surgery of Modern Warfare

Surgery of Modern Warfare. Edited by HAMILTON BAILEY, F.R.C.S., surgeon, Royal Northern Hospital, London. Subeditor for Medicine, C. ALLAN BIRCH, M.D., M.R.C.P., senior physician, North Middlesex County Hospital. Compiled by seventy-seven contributors. Third edition in two volumes. With numerous illustrations. Baltimore: The Williams and Wilkins Company, 1944. Pp. 1108. Price $20.00.

Dr. Bailey seems somewhat peeved because he could not get the cooperation of the president of the Board of Trade in England to allocate the quantity of paper needed for a two-volume surgery. There were also restrictions on "medical information", and this made difficult the securing of facts as to wounds and their treatment which are a sequence of the use of "projectiles and other engines of destruction". It is undoubtedly true that a surgeon is greatly aided by a knowledge of "causes" of wounds, but it is also true that one dared not play into the hands of the enemy by describing the kind of weapons in use. That sort of censorship is necessary and desirable, however vexing. The author states that "We have been honoured . . . by the U.S. Government, who have adopted this work for their Army, but at home this is far from the case". The book is, therefore, not "official", but that makes little difference, for it is replete with information written by men of high surgical standing (seventy-seven in all) who have worked in Britain and in her colonies.

"Very thorough revision" has been the rule in this third edition. There are many new drawings; the old ones have been revamped, and photographs in color add much to the reader's instruction and pleasure. Volume I deals with general considerations, such as classification of wounds, localization of foreign bodies by x ray, and bacteriology of wounds. (Moorhead's f.b. locator is mentioned on p. 299.) There is much about wounds, infections, fractures, amputations, and injuries to head, neck and thorax, with a chapter on "Surgical Diseases Encountered in Subtropical Countries". Volume II considers wounds of bones, joints, hand and foot, tendons and nerves, eye, ear, nose and throat and "the trunk". Section XX outlines "Administration". It describes the "stretcher case", wounds in naval action, transportation of wounded, and hospital organization at "the front" and further back of the

lines. An appendix and index complete the work. The British have seen a lot of war. They have learned much "the hard way". Sincerity, stability, earnestness and devotion to the common good characterize these two commendable volumes. A later revision will become necessary when all "the facts" are allowed to come out. This is true of all "war books" dealing with medicine and surgery.

Surgery of the Chest

Surgical Disorders of the Chest. Diagnosis and Treatment. By J. K. DONALDSON, B.S., M.D., F.A.C.S., diplomate American Board of Surgery. Illustrated with 127 engravings. Philadelphia: Lea & Febiger, 1944 Pp. 364. Price $6.50.

Surgery of the chest has made some important advances during the past twenty-five years, and the thoracic surgeon is being called upon much more frequently to help solve "problems" than he was, let us say, during the 1920's. Again, it is the "general man" who sees these problems first and who needs to keep in mind the possibilities of such surgery. For example, surgery is applicable to lung abscess, empyema, gunshot wounds, chest injuries in general, pleurisy, pericardial effusion, and, of course, carcinoma of esophagus or lung. Concerning pneumonectomy and lobectomy, the author thinks we are not yet ready to evaluate these procedures fully, but "they have a place in the treatment of pulmonary tuberculosis although this place is limited." Pioneer work in this field was done in New York by Willy Meyer, Howard Lilienthal and Harold Neuhof, but this reviewer fails to find any mention of their contributions. Unless memory fails, the first "Sauerbruch Chamber" in this country for use in intrathoracic surgery was set up at the old German (now the Lenox Hill) Hospital in New York City.

Chapter 25 deals with artificial respiration, resuscitation and inhalation therapy. The Shafer method is described and the "automatic resuscitators", but no mention is made of the great work of P. J. Flagg and his Society for the Prevention of Asphyxial Death, nor of his recently published book on resuscitation which is probably the most comprehensive study of this subject to date. In discussing methods of administering oxygen, tent, chamber, mask, and catheter are described, but the subcutaneous method which is highly recommended by Evans of Buffalo and others is not found. These are not grave faults, however, and in general, Dr. Donaldson's book is full of useful and helpful information.

Alcoholics

Alcoholics Are Sick People. By ROBERT V. SELIGER, M.D., assistant visiting psychiatrist, Johns Hopkins Hospital. In collaboration with VICTORIA CRANFORD. Edited by HAROLD S. GOODWIN, B.A. Baltimore: Alcoholism Publications, 1945. Pp. 80. Price $2.00.

This little primer is described as a "monograph for use by physicians, psychiatrists, nurses, social workers, clergymen, educators, patients and relatives". That concerns nearly everybody, and so does the abuse of alcohol. An attempt is made to analyze the mind and habits of the diseased habitue and to inspire him to forsake his ways, for many excellent and cogent reasons. Cure of alcoholism as a disease, however, is distinctly the province of the physician—a field it must be regrettably said which he has not cultivated as well as he should have done. One fact is certain above all others; namely, that alcohol must be eliminated from the system through fairly drastic medication, and cultivate a distate for it by various "specific" procedures. After that, comes the rebuilding of the character, strengthening of the will, and readmission to a useful place in social and business life. In all this enterprise, the nonmedical person can be of very great assistance, but you cannot reform an alcoholic by writing books about him or even by talking to him—the basic underlying medical "cause", must be sought for and removed, if at all possible. There would not be much point, however, in trying to reform a man who knows that he is dying of cancer, for example, and who has decided to drink his way out of life. The same would be true of morphinism. Euthanasia is not yet accepted, save by a few "advanced thinkers", but it has its points. One can and must regret the necessity for considering it at all, but the ugly facts still remain.

Every effort should be made to encourage movements of the kind represented by this book, especially in our post-war period. One need merely gaze through open doors into the modern drink-house to draw his own conclusions, and predictions.

Soap

Medical Uses of Soap. A symposium, edited by MORRIS FISHBEIN, M.D., with the help and collaboration of nine leading doctors. With forty-one illustrations. Philadelphia, London, and Montreal: J. P. Lippincott Co., 1944. Pp. 182. Price $3.00.

Dr. Fishbein has brought to the reader of this most useful text the opinions of experts in the fields of the chemical and physical phases of soap and its clinical application. The physician reader will find unfolded the secrets of soap and soap making. He will be able to decide for himself the virtues of the rival claims of soap and the soapless cleansers. The work of the laboratory and the clinic is so interwined he will be enabled to advise his patient as to the character (if not the trade name) of the product the individual requires to retain or restore surface health through soap and soapless cleansing agency.

Some of the papers should be known to the physician as they appeared in medical journals. The article by Udo Wile is particularly interesting and well recalled. The fascinating writing of Sulzberger and his coworkers always has an appeal; his clarity is remarkable whether tackling the problems of chemistry, allergy, dermatology or any other phase of medicine. Hollander's early paper on Soap for Shaving is still classic. Fishbein's all too short contribution is a gem. Lane and Blank contribute another of their series on cutaneous detergents other than soap, and make their case for the sulfonated or sulfated oils with and without inert matter, namely water.

Pediatrics

The 1944 Year Book of Pediatrics. Edited by ISAAC A. ABT, D.Sc., M.D., professor of pediatrics, Northwestern University Medical School. With the collaboration of ARTHUR F. ABT, M.D., associate professor. With numerous illustrations. Chicago: The Year Book Publishers, 1945. Pp. 448. Price $3.00.

Evaluations of all the aspects of pediatrics are given in the choice selections of abstracts from the world literature. Special emphasis is given to nutritional, infectious and endocrine advances as well as to the Rh factor. An unusual factor is the predominance of contributions from journals in other parts of the world, thus bringing rare entities in pediatrics to the fore.

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SEPTEMBER 1945

Medicolegal Notes

Date of Beginning of Sickness Determines Liability

An accident and health policy provided that on reinstatement the policy should cover such sickness as might begin more than ten days thereafter. The insured's sickness began less than ten days after the reinstatement. The insured could not recover on the policy, although the disability resulting from the sickness did not begin until more than ten days after the reinstatement. Leon vs. Mutual Benefit Health and Accident Association, Illinois Appellate Division, 323 Ill. App. 303, 55 N.E. 2d 557.

Prior Heart Trouble and Overdose of Medicine

Insurance against death by accident is usually afforded for a small premium, and the coverage is correspondingly narrow. The liability is guarded by carefully chosen words. Courts have no more right by strained construction to make the policy more beneficial by extending the coverage contracted for, than they would have to increase the amount of the insurance. White vs. New York Life Ins. Co., Fifth Circuit Court of Appeals, affirming the Federal District Court for Alabama, 145 F. 2d 504, holding that even if an insured took by mistake an overdose of medicine and in consequence had an accidental fall, and either or both contributed to his death, no recovery could be had on the double indemnity provision of his life policy where the evidence showed that a heart condition, which had existed for five years, had also contributed to his death.

Prior Heart Condition Not Test of Disability

Where the company had extended an accident policy from year to year without inquiry as to the state of the insured's health, it was no defense to a beneficiary's action on the policy that a heart ailment, which the insured had developed several years prior to his accidental death, made him uninsurable.

An accident involving the taxicab in which the insured was riding was alleged to be the cause of his death. It was held that the frailty of insured's heart was merely a condition of his body and could not be made a test of the insurer's liability under the policy. Graff vs. Ocean Accident and Guarantee Corporation Federal District Court for Northern Illinois, 56 F. Supp. 676.

Extent of Compensation (Minnesota)

Where an injury to an employee's leg necessitates successive amputations, is complicated by infection permeating his whole system, and results in his total permanent disability, his right to compensation is measured by such disability and is not limited to the compensation fixed by the Minnesota Statute for the sole loss of the use of the leg itself. Olson vs. Griffin Wheel Co., Minnesota Supreme Court, 15 N.W. 2d 511. The Minnesota Supreme Court has frequently held that it is the actual disability resulting from an industrial accident, and not the nature or location of the specific injuries, that determines the extent of compensation under the Minnesota Act.

Cause and Effect

"The rule is well settled by numerous cases that to establish the relation of cause and effect between an injury to a workman and his death so as to justify an award of death benefits under a workmen's compensation law, the evidence must be such as to remove the case from the realm of speculation and conjecture; there must be competent evidence tending to show a proximate causal connection between the injury and the subsequent death."

Inhaling Infective Matter

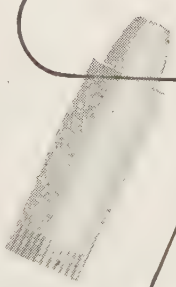
Evidence that the insured under an accident policy inhaled infective matter containing anaerobic germs into a lung, which resulted in a putrid abscess, coupled with evidence that a dentist had removed tartar from the insured's teeth and that such germs live in tartar, was held insufficient to authorize a finding in an action on the policy for empyema of the lung, that disability resulted through external, violent and accidental means, in view of evidence that such germs also live in the tonsils and in the throat generally and could have been aspirated easily by the plaintiff, whether asleep or awake. Tucker vs. Commercial Travelers Mutual Acc. Ass'n of America, Trial Term of New York City Court, 51 N.Y.S. 2d 413.

a less irritating
vasoconstrictor—

"a benzedrine
inhaler is probably the
least irritating of
any method for shrinking
the nasal mucosa."

Shambaugh, G. E., Jr.:
J. Iowa State Med. Soc. 31:373-377.

a better means of nasal medication



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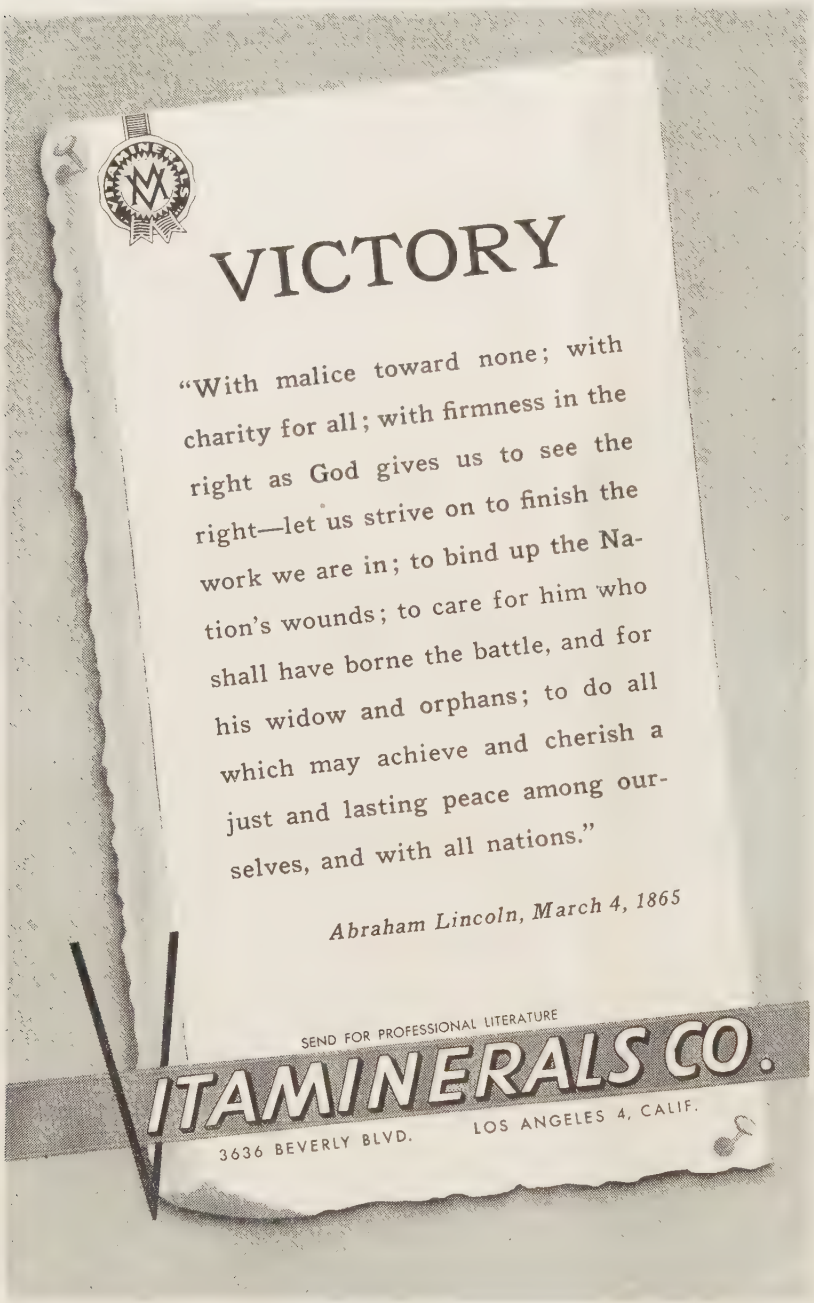
VICTORY
"With malice toward none; with charity for all; with firmness in the right as God gives us to see the right—let us strive on to finish the work we are in; to bind up the Nation's wounds; to care for him who shall have borne the battle, and for his widow and orphans; to do all which may achieve and cherish a just and lasting peace among ourselves, and with all nations."
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Anton Chekhov

Had Anton Chekhov been possessed of normal health he might have become one of those rare men who distinguish themselves simultaneously in two professions. In his comparatively short life of forty-four years he achieved a reputation as one of the greatest of Russian writers; but he was also a physician who continued to practice medicine until the ravages of tuberculosis made this impossible. He possessed many qualities which should have been valuable in medical practice: a capacity for accurate observation, an objective and logical approach to any problem which confronted him, and a sympathetic and humane nature. Physicians who had been present at consultations with him said that he had remarkable ability as a diagnostician. It was his desire to carry on his work in both his chosen fields. Chekhov himself once wrote: 'I have two professions and not one. Medicine is my lawful wife and literature my mistress.'—From *Clinical Exerpts,* Winthrop Chemical Company.

Medically Described

A patient who complained of digestive troubles was told by a specialist that he was drinking too much and would have to knock off. "Well," said the patient, "what am I to tell my wife?" The doctor thought for a few minutes, then said: "Tell her you are suffering from syncopation. That will satisfy her." The patient did as he was told. "What is syncopation?" asked his wife.

"I don't know," said the husband, "but that's what he said."

When the husband had gone out the wife looked up the word in the dictionary, and found that it meant: "Irregular movement from bar to bar."—*New York State Jour. Med.,* July 1, 1945.

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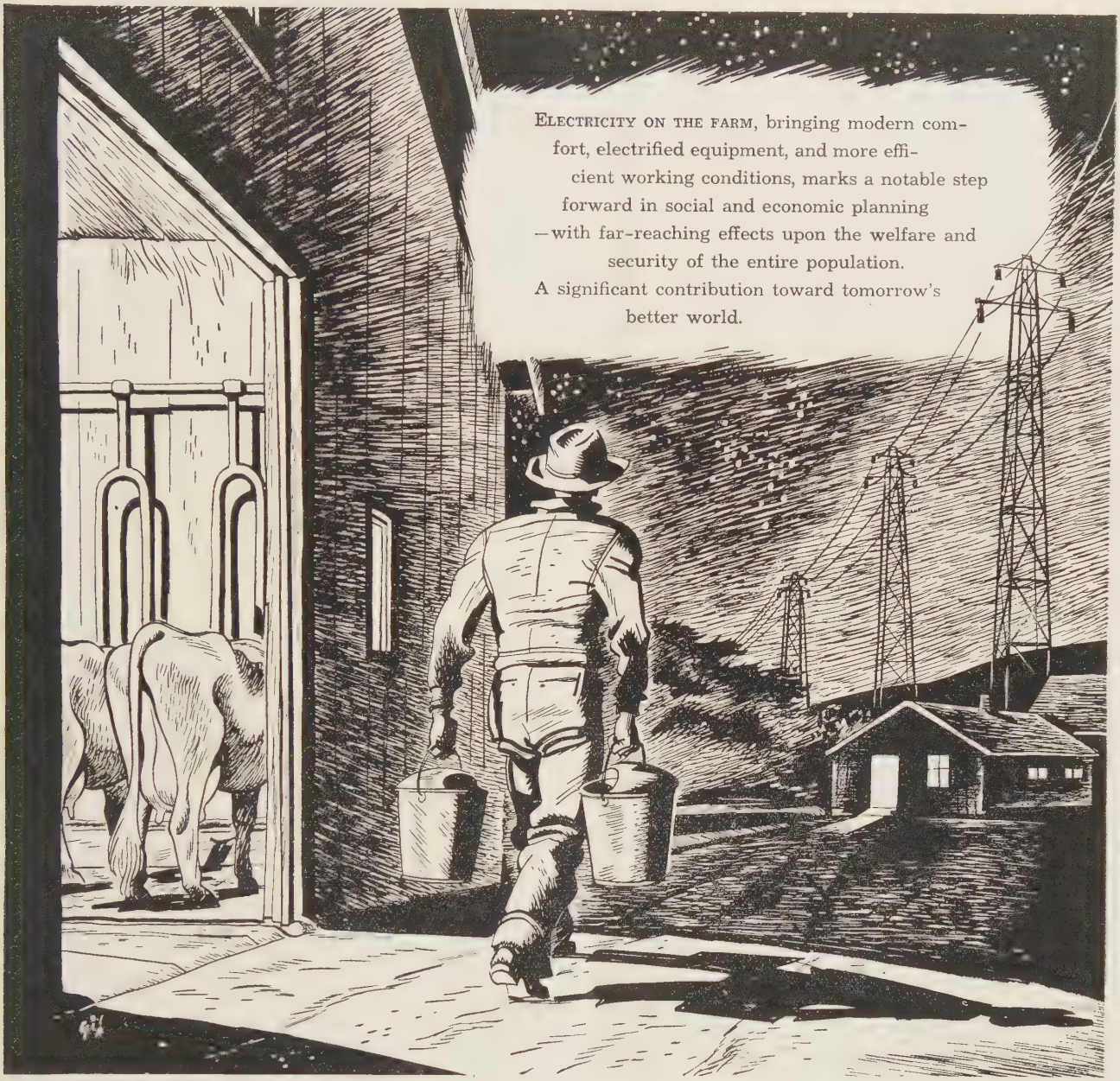
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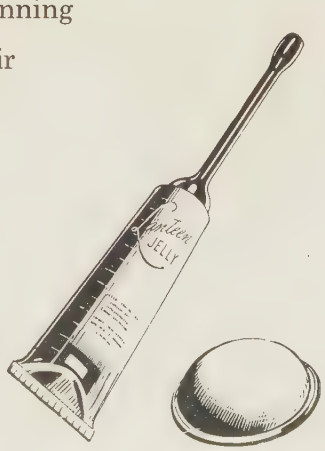

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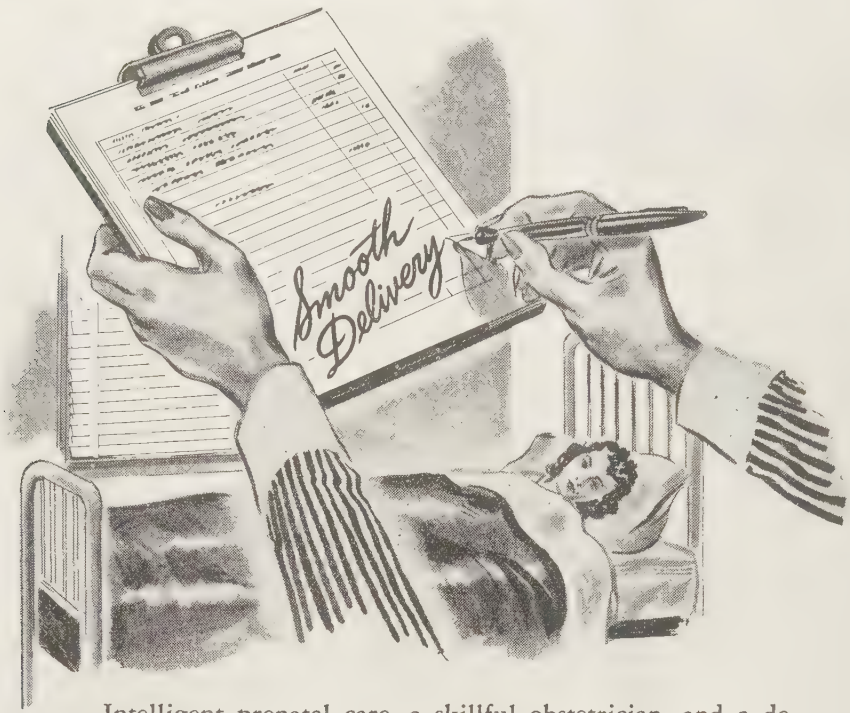

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Tuberculosis

On the basis of data available from different parts of the country it is clear that there was a definite increase in the death rate from tuberculosis in many of the industrial cities in the north-central and northeastern part of the country last year, with a normal decline in other parts of the country. In Massachusetts the increase has been largely among the older age groups with an excess among males. In my opinion this increase is largely the result of breakdown among older men who are working beyond their strength. A larger number than usual of patients with a diagnosis of tuberculosis are refusing sanatorium treatment and a certain number are leaving the sanatorium against advice to take jobs at the high wages now available. It is probable that overcrowding due to the present shortage of housing is of importance in the spread of tuberculosis, but there has so far been no increase in tuberculous meningitis and generalized tuberculosis in children such as occurred in England during the first two years of the war.—Alton S. Pope, M.D., *Massachusetts Bull.*, Dec. 1944.

* * *

Tuberculosis in state hospitals is a larger problem than has been generally recognized. It is to be expected that four percent of the patients will have active pulmonary tuberculosis. Unless these patients are found, they constitute a source of contagion to the entire population.—Joseph R. Blalock, M.D. and James B. Funkhouser, M.D., *Ann. Int. Med.*, August 1943.

* * *

The early recognition and treatment of tuberculosis found in the routine chest x rays of expectant mothers will increase the chances for safe delivery and for permanent cure, says the *Baltimore Health News*.

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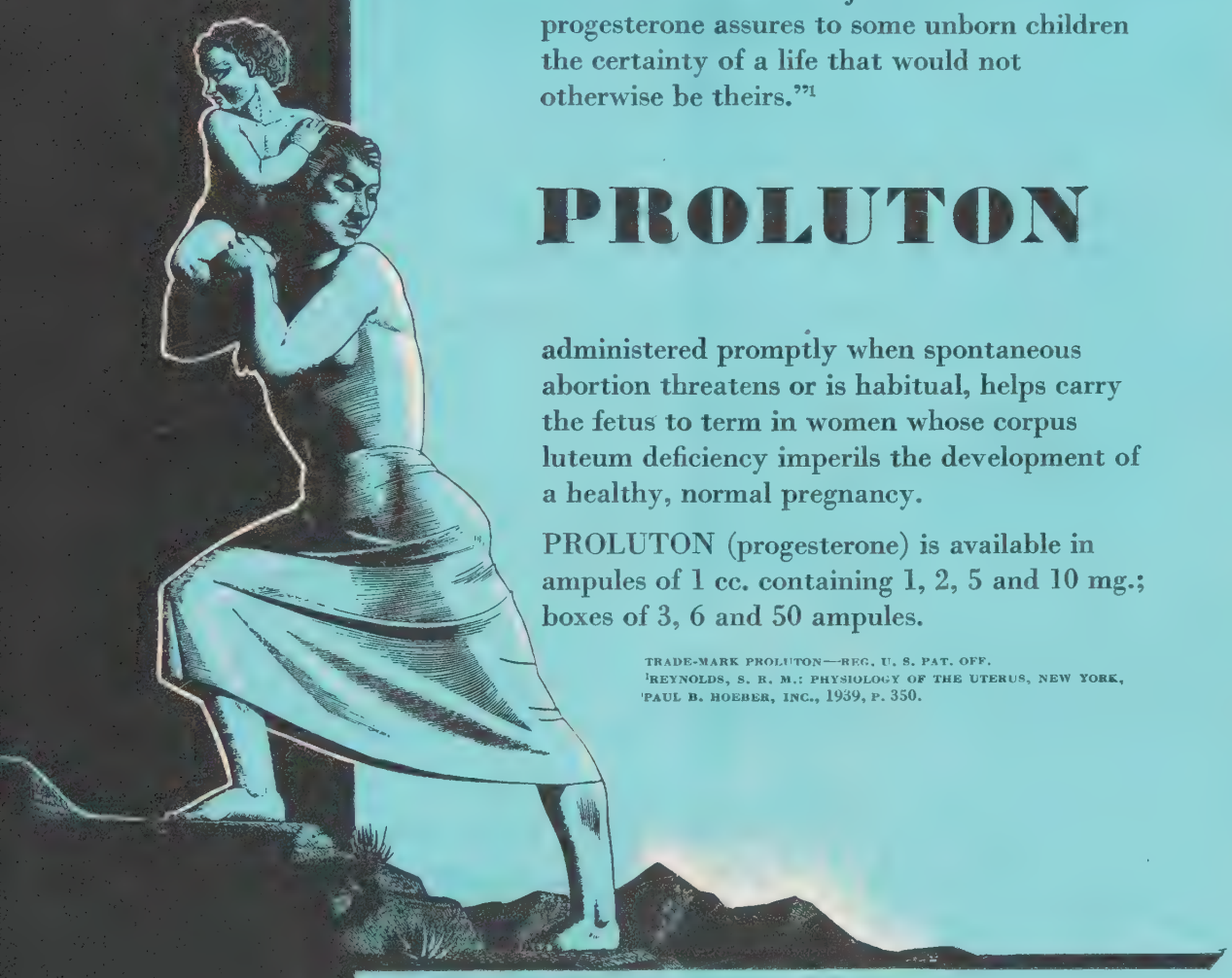

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[1]REYNOLDS, S. R. M.: PHYSIOLOGY OF THE UTERUS, NEW YORK, PAUL B. HOEBER, INC., 1939, P. 350.

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Age of American Military Leaders

The Metropolitan Life Insurance Company (*Statistical Bulletin,* June 1945) has analyzed the age distribution of admirals in the United States Navy, believing that it is natural to inquire about the age of men who have played such an important part in World War II, in which the magnitude and complexity of military operations have been unprecedented. Subsequent articles will give similar analyses for the highest ranking officers in the Marine Corps, Coast Guard, and the Army. It was shown that the average age of line Admirals in the United States Navy was lowered by 2.2 years between May 1, 1940 and May 1, 1945. Currently, the average age of Admirals of the line is 56.4 years. Five years ago it was 58.6 years; the comparable figure for 1918, during the last war, was slightly higher, namely, 58.7 years. The reduction in average age during the present war has been effected despite the recall to active duty of a considerable number of retired officers; the latter group now comprise almost one fifth of the total number of Admirals on active duty. What has occurred, of course, has been the promotion of a group of younger men to ranks of high responsibility. This is reflected, for example, in the fact that at present there are thirty-eight Admirals of the line under fifty years of age, one in every seven, whereas five years earlier there were none under fifty. The average for the three is sixty-five years. For Admirals, the average is 63.6 years; for Vice Admirals, 59.6; and for Rear Admirals, fifty-five years. The latter group, by far the most numerous, shows the widest range of ages, from forty-two to seventy-five years.

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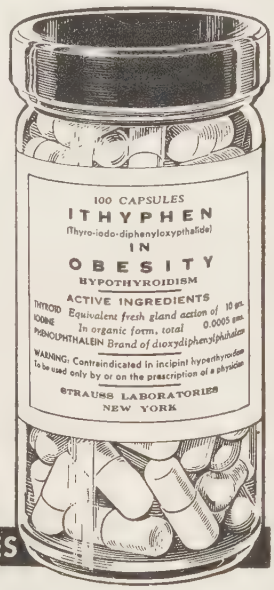

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Rehabilitation Program of the Baruch Committee on Physical Medicine

Soldiers' memorials in the form of permanent establishments for the restoration of injured veterans, rather than stone and bronze monuments in public places, is the aim of the Baruch Committee on Physical Medicine founded in 1944 by Bernard M. Baruch with an endowment of $1,190,000.

The Committee's subcommittee on war and postwar physical rehabilitation and reconditioning, made up almost entirely of medical corps officers of the armed services, has been working since last February on the project and has just sent out to institutions and consultants all over the country a blueprint of an ideal war memorial, according to a release from the Committee. This shows the plans for buildings, equipment and staff required for such a center and plots the courses of treatment indicated for the restoration of maimed fighting men or injured war workers to useful activity.

Such replies as have already been received indicate that the idea has taken a solid hold on public imagination, and that communities generally are realizing that permanent establishments erected for the benefit of their fighting men are much more fitting memorials to them than conventional monuments set up in public parks and squares. The Baruch Committee is encouraging communities to realize the validity of this, and proposes that medical centers dedicated to veterans' restoration carry appropriate lettering or tablets on their principal facades stating clearly the purpose of their erection and maintenance.

After erection, and as time goes on, civilian patients, especially those injured in modern industry, may be sent to the centers by their personal physicians and surgeons, their care and treatment helping to meet expenses and overhead. The cost of treatment for military patients will of course be met by the Government, especially in the beginning. Ultimately such centers as the Committee has in mind should be self-sustaining.

Under the Baruch Committee plan, returned veterans may be placed in centers close to their homes, where they can see their families and friends almost constantly. They will have, in addition, the benefit of a large variety of treatments and facilities quite new to physical medicine and only born of the present war.

Another factor that has greatly encouraged the Committee is that the public has a clearer understanding of physical medicine, and crippled veterans now come to military and other hospitals determined that they are not going to stay in them. They arrive with their minds made up to cooperate with all their mental and bodily powers and return as soon as possible to normal living in the world outside. Still another factor of encouragement is that hundreds of medical corps men now in the services have signified their intention of making a career of physical medicine.

There are already, in many hospitals and clinics making a specialty of physical medicine—and in the service hospitals especially—records of cures and restorations that would not have been deemed medically possible at the conclusion of the first World War. Artificial limbs and crutches have been immensely improved and their construction is almost a science in itself. Scientifically planned and directed exercise is working wonders.

To attempt by sheer force to evacuate a constipated bowel may jeopardize the already precarious condition of hypertensive cardiac, tubercular and other patients on bed rest.

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The Eighth General Medical Dispensary

This medical unit, which has handled ninety thousand cases, has completed its work in the Mediterranean Theater of Operations, according to an announcement from Allied Force Headquarters, Italy. Activated thirty-four months ago at Shriveham, England, the Eighth has served American and British personnel in Algiers and at Caserta, Italy. It was commanded by Lt. Colonel Robert L. Richards, of Chester, Vermont, did its own x ray work and refractions, handled minor surgical problems, treated eye, ear, nose and throat cases, and did intensive work in skin disease and psychiatry.

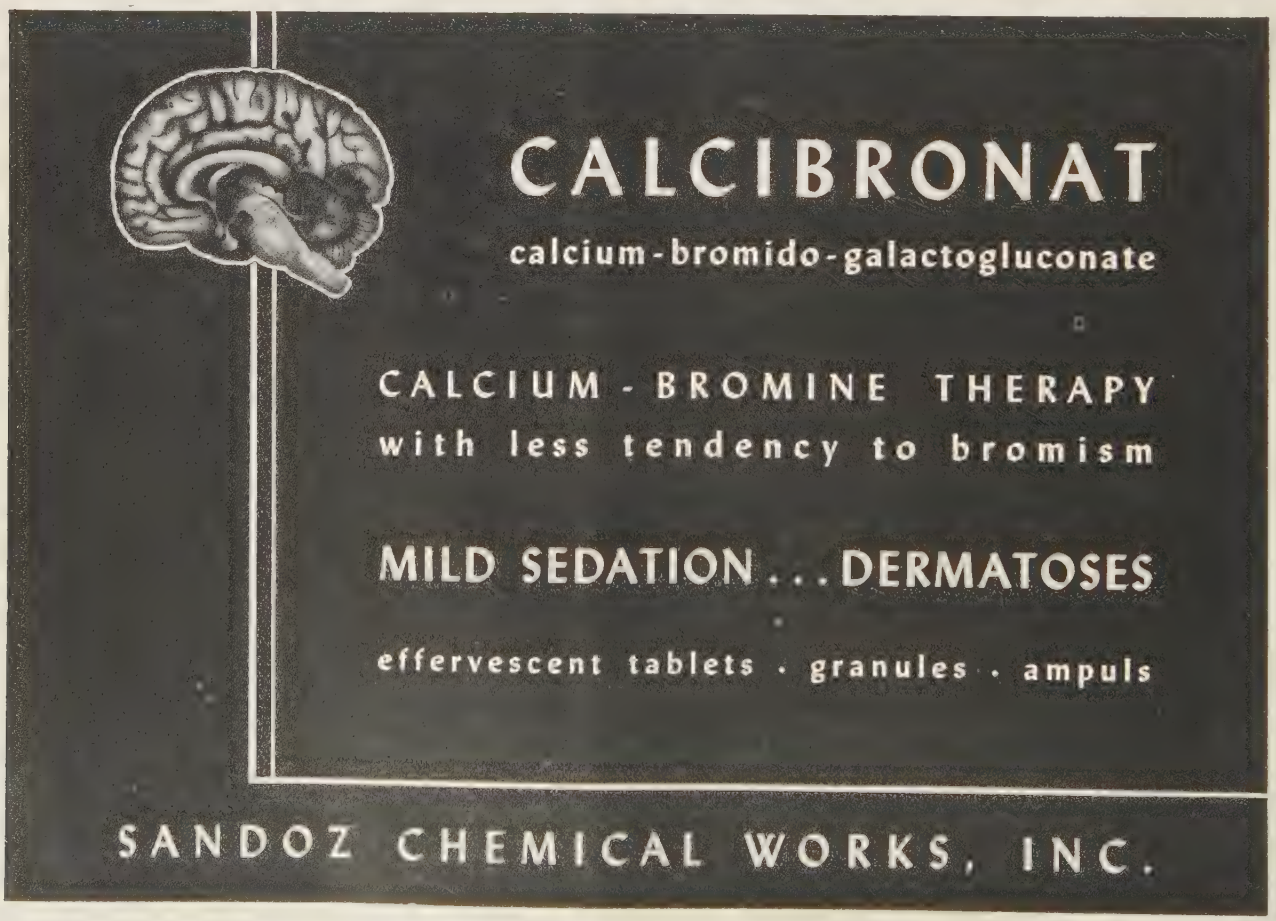
In addition to its primary function of out-patient work, the Eighth maintained beds for quartered cases, conducted semimonthly physical examinations, operated a dental clinic, ran a WAC dispensary, x ray department, pharmacy, and medical and dental laboratories. "Extracurricular" work consisted of treating emergency civilian cases, prisoners of war, and examining food handlers serving the forces. The dental laboratory was one of the most modern and best equipped in the theater.

Cited as being "greatly responsible for early individual health and the inhibition of epidemics in Allied Force Headquarters," the Eighth General Medical Dispensary arrived in Caserta in time to meet an existing influenzal type of infection, which preliminary investigation suggested was the endemic Sand Fly Fever. Prompt action by the personnel in setting up its dispensary and tackling the job brought rapid recovery, preventing further spread of the infection.

Conquest of Smallpox

Only three hundred and eighty-four cases of smallpox were reported in the United States during 1944, according to the *Statistical Bulletin* of the Metropolitan Life Insurance Company. This is less than half of the previous low record established the year before. In the area stretching from Maine to Maryland, there was not a single case last year; Utah also had a perfect record. In all, twelve states and the District of Columbia, which include more than one quarter of the total population of the country, were completely free of smallpox in 1944. Twenty-two states reported less than five cases per million population. The largest number of cases, in Indiana, was only thirty-eight. As recently as 1940 Minnesota and Iowa each had more cases than were recorded in the entire country last year.

The progress made toward the elimination of smallpox in this country since the first World War is shown by the fact that in 1921, when figures for the country as a whole began to be fairly complete, there were about one hundred and nine thousand cases of the disease reported in the United States. In that year thirty-one states each reported in excess of one thousand cases, one state running above nine thousand. In the next largest epidemic year, 1924, the number of cases was close to fifty-seven thousand. A somewhat lower peak is recorded for 1930, when nearly fifty thousand cases were reported. The most recent upswing in smallpox culminated in 1938, with fifteen thousand cases that year. Since then the trend has been steadily downward, with the result that the disease is now near the vanishing point.



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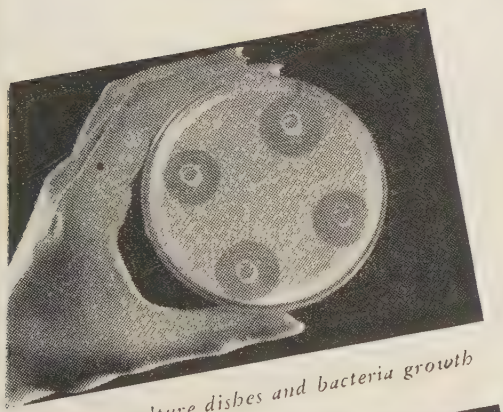
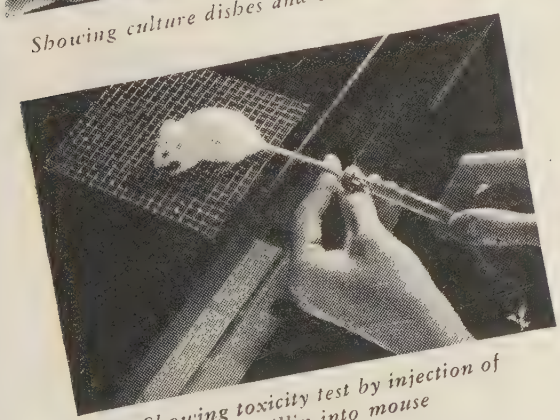
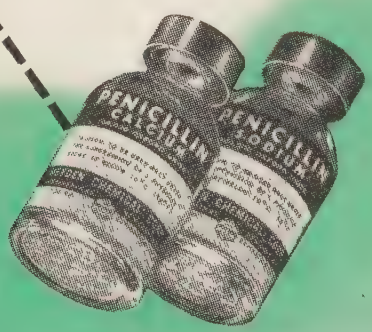


Showing culture dishes and bacteria growth



Showing toxicity test by injection of Penicillin into mouse



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University of Pennsylvania Medical Unit In Assam, India

The Twentieth General Hospital, situated in northern Assam, is outstanding among the American medical units that have provided medical care and treatment of a high order on every fighting front during World War II. The unit was organized at the University of Pennsylvania medical school, under the guidance of its commanding general, Brigadier General Isidor S. Ravdin, for many years a prominent Philadelphia surgeon, and his Executive Officer Colonel John McK. Mitchell, a pediatrician in civilian life. The unit was formed in June 1940, activated in May 1942, and arrived overseas in March 1943 as the first American Army General Hospital in the then China-Burma-India theater.

As a University of Pennsylvania unit, the hospital drew its entire medical personnel directly from the faculty of the medical school. About forty percent of the nurses were Pennsylvania trained. Their common background, along with the stimulus supplied by General Ravdin and his able staff of assistants, has contributed immeasurably to the enviable record established by the hospital during its overseas service.

When the unit arrived in Assam, its location was surrounded by dense jungle, and turned into a quagmire by the monsoon rains. The few buildings available were sagging bashas, with dirt floors and leaking roofs. There were no roads, almost no facilities—only mud. Today the area has been increased to more than a square mile. The hospital has slightly less than three thousand beds, just about three times its original intended capacity of one thousand. It has almost four hundred separate bamboo basha buildings, with concrete floors, waterproof roofs, and mosquitoproof interiors.

Were it not for the native construction—woven bamboo walls on the buildings and thatched roofs—the hospital might be any modern medical institution in the United States. It has a refrigeration plant, electric light plant, water filtration and chlorination plant, two private water wells, an air conditioned typhus ward, air conditioned operating rooms, its own post office, post exchange, motor pool, utility and repair section, and other medical and military necessities. It has a recreation building with a one thousand person capacity inside theater, a game room, library, and snack bar equipped with an electric popcorn machine. It has two baseball diamonds, a boxing ring, three tennis courts, three badminton courts, and a volley ball and basketball court. Athletic facilities are used on a free-time basis by hospital personnel and on schedule for reconditioning patients in the convalescent wards. Patients in the reconditioning program use the Red Cross crafts shop, where woodworking, metal-working, and other handicraft facilities are available.

Where once there was only mud and dust, black-top surfaced streets and sidewalks now wind through the area. A thorough landscaping job has been done; palms, poinsettas, banana trees, and native flowers and shrubs have been transplanted in attractive rows around the buildings. But the pride of the hospital—on the nonprofessional side—is the garden, a project pioneered by General Ravdin. Twenty-four acres are under cultiva-

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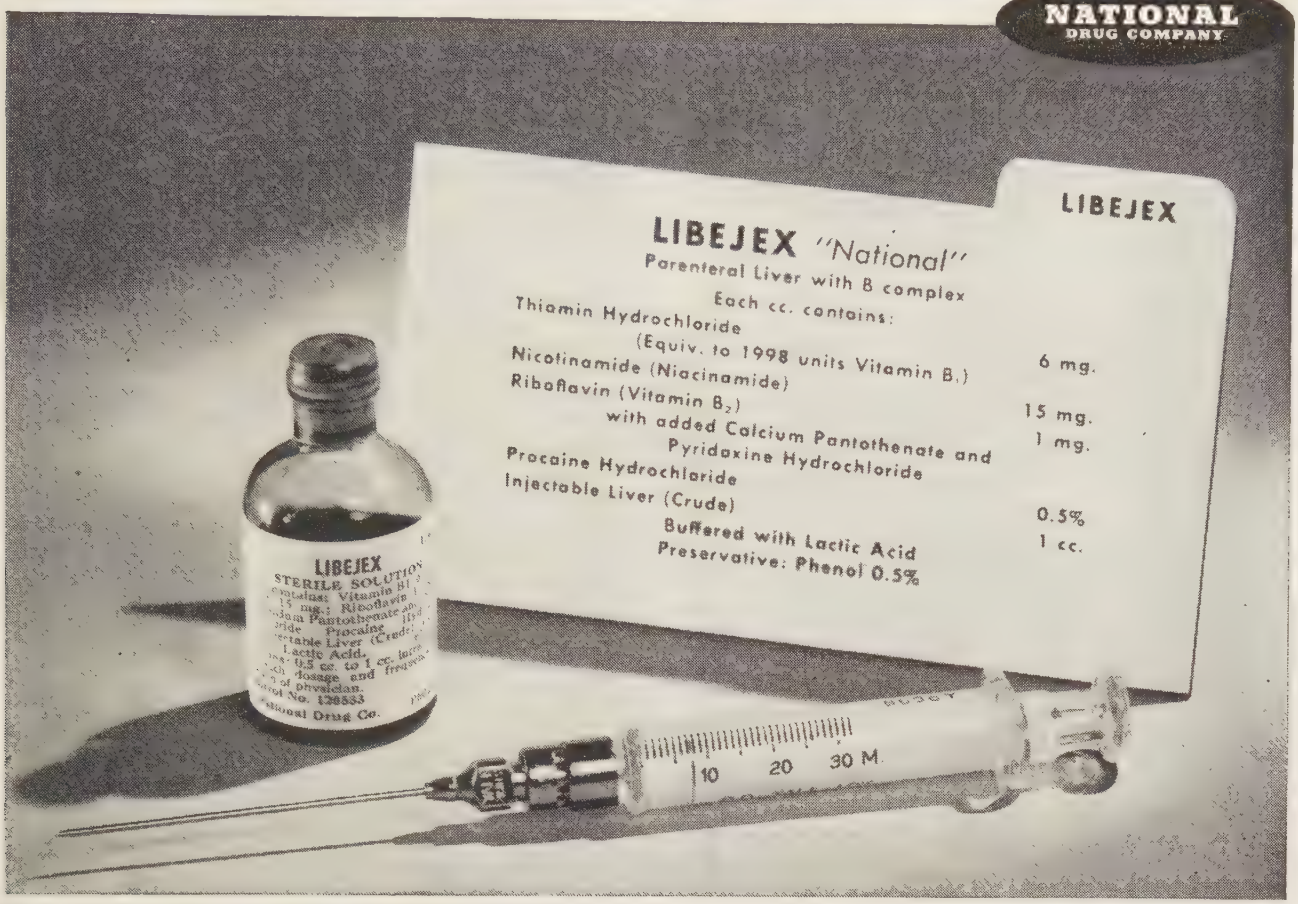

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tion at the present time. Seeds for the garden were sent to Assam by the University of Pennsylvania seed club.

Much of the credit for its total accomplishment is due directly to General Ravdin, peacetime John Rhea Barton professor of surgery and director of the Harrison department of surgical research at the University of Pennsylvania. Among the University of Pennsylvania staff members whose efforts have been particularly noteworthy are:

Col. Thomas E. Cook, associate professor of dental surgery at Pennsylvania, chief of the hospital dental service; Col. John McK. Mitchell, assistant professor of pediatrics at Pennsylvania, executive officer of the hospital; Lt. Col. Francis C. Wood, associate professor of medicine and assistant director of the Robinette Foundation for the study of heart disease at Pennsylvania, present chief of the hospital medical service; Lt. Col. James S. Forrester, director of the William Pepper Clinical Laboratory at Pennsylvania, chief of the hospital laboratory service; Lt. Col. Philip J. Hodes, assistant professor of radiology, former chief of the hospital radiology service (recently returned to the United States); Lt. Col. John Paul North, assistant professor of surgery at Pennsylvania, former chief of the hospital surgical service (recently returned to the United States); Major Mary Cornelius, former member of the University Hospital staff at Pennsylvania, principal chief nurse at the hospital.

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San Francisco, Calif.

Two psychoanalysts meet: Said one to the other—"You feel fine. How do I feel?"

* * *

Definition of a baby. "An alimentary canal, with a loud noise at one end and a total lack of responsibility at the other."

* * *

One bullet struck him in the abdomen, another in the shoulder, the third, going wild, was found in the basement.

* * *

Professor: "What happens when a body is immersed in water?"

Coed: "The telephone rings."

* * *

"Got a headache? Take some acetylsalicylic acid."

"You mean aspirin."

"Darn thing. I can never remember that name."

* * *

The teacher has asked her class to write a short essay on water. One boy, after chewing the pencil for a long time, wrote: "Water is a colorless wet liquid that turns dark when you wash in it."

* * *

Mother: "Mary, where have you been until 3 a.m.?"

Mary: "Walking, mother."

Mother: "For goodness sake."

Mary: "Yes, mother."

* * *

First steno: "Are you doing well in your new job as a doctor's secretary?"

Second steno: "Not getting anywhere. The boss hasn't complimented me on anything but my work."

* * *

Proud ocean traveler: "I'm an author. I contribute to the *Atlantic Monthly*."

Green-faced friend: "Phooey. I contribute to the Atlantic daily."

* * *

"I have a pain in my abdomen" said the rookie to the Army doctor.

"Young man" replied the medico, "Officers have abdomens, sergeants have stomachs, *You* have a bellyache."

* * *

The doctor had just finished examining an underprivileged child who was being sent away for a free summer vacation. The doctor said: "Well, young man, tell me. Do you open the window when you go to bed at night?"

The boy looked up in surprise and exclaimed: "What, and kill the canary?"

* * *

O'Flanagan (to hospital attendant): "Phwat did you say the doctor's name was?"

Attendant: "Doctor Kilpatrick."

O'Flanagan: "That settles it. No doctor wid that name will get a chance to operate on me—not if I know it."

Attendant: "Why not?"

O'Flanagan: "I'm Patrick."

On the Job—OUR FEMININE "MANPOWER"

OFFICIALS of the War Manpower Commission assert that women today can capably "take over" any man's job, *provided it is within their physical powers.*

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Evacuation of Sick and Wounded Soldiers

More than one hundred thousand sick and wounded soldiers were returned from Europe from V-E Day to July 31st, according to a statement by Brigadier General Raymond W. Bliss, Assistant Surgeon General of the Army. The Army set for itself a goal of returning by plane and ship all transportable wounded from Europe within ninety days after V-E Day and the record job was completed before the August 8th deadline. In the last war thousands of wounded awaited transportation from Europe for a year. The number of non-transportable cases is comparatively small, General Bliss pointed out, and these will be transported to the United States as they are able to be moved.

A streamlined policy of processing wounded returnees has been in effect and the patient is permitted to visit home with an absolute minimum of delay. The majority of the men have arrived at New York City or Charleston, S.C. In a matter of hours within their arrival they are assigned a bed at a nearby hospital, such as Halloran at New York or Stark General at Charleston. Surgeon General Norman T. Kirk directed that patients be sent from the port of debarkation hospitals to hospitals where they could get the best medical and surgical care according to their needs. Amputation cases, for example, were sent to one of the seven general hospitals which specialize in this field, and deaf patients are sent to Borden in Oklahoma, Deshon in Pennsylvania, or Hoff in California.

At the time of Pearl Harbor there were approximately fifteen thousand beds in all Army general hospitals in this country. That capacity is now two hundred and fifteen thousand and does not include the vast network of Army station and regional hospitals which provide for routine needs of soldiers stationed in this country.

Military Surgeons Cancel Annual Meeting.—The executive council of the Association of Military Surgeons of the United States has voted to cancel the annual meeting, which was to be held in Detroit in October. It was also voted to retain in office the present officers of the association and to hold a 1946 meeting in Detroit.

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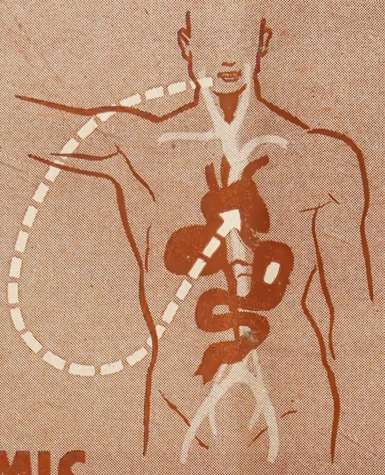

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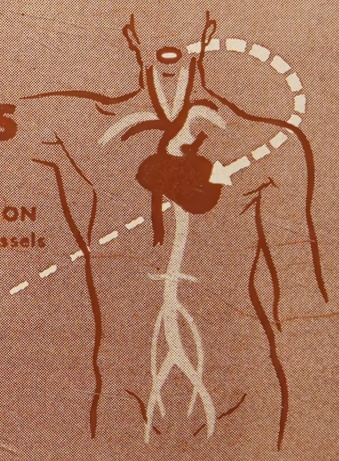

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